



Military Discipline,  
OR THE  
ART of WAR.  
SHEWING  
Directions for the Postures  
IN  
EXERCISING  
OF THE  
PIKE and MUSKET,  
THE

Dragoons, Grenadiers and Horse;  
*John Churchill*  
The Art of Doubling, Wheeling, Forming  
and Drawing up a Battalion or Army into any  
Figure, &c.

The Method of conducting Armies in Champaign,  
Hilly or Woody Countries: Of Encampings, Battling,  
giving of Battel, with all sorts of Instructions and  
Observations belonging to the whole Art of War as  
now practised.

All represented in Twenty several Copper Plates  
with variety of several Prospects and other Designs, for  
the Practice and Exercise of Arms.

Improved and Designed by Capt. J. S.

Published and Sold by Robert Morden, at the shop  
near the Royal Exchange in Cornhill. 1689.

Military Discipline

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**The PUBLISHER**  
**TO THE**  
**READER.**

**T** *Here have indeed been many Books written and published in English concerning this Military Art, that is to say, by Bingham, Hexam, Ward, Ekton and Vern, Gentlemen all of great worth and parts. But as in all Ages there have been Wars, so the Rules and Maxims thereof have been changed and altered: And those ways which are now in use are much different from what was in practise in former times, so that most of those Authours are now almost of little or no use, though then excellent and of great esteem. For they who best understand the Art of War, know that*

## The Publisher

*the way which the French use as it is the best so it is very different from the practise of other Nations, especially in England. My design therefore being to instruct the English (who may not well understand forraign Language) in that Art of War as now practised in France and Germany, I have therefore procured the Translation of the most usefull parts out of Mr. Mallet, a Book dedicated to the King of France, and of great value and price, as also from other French and German Writers, who are esteemed the most expert and industrious: And have been also at the charge of engraving all new, the most material designs and draughts in those Books far beyond what was ever done in England before. All which I humbly present to all those that esteem it their Honour to bear Arms for their Prince, and Glory of their Countrey. Heartily wishing it may be as serviceable*

## To the Reader.

ceptible and advantageous to them, as it hath been very laborious and expensive to me: Then shall I not think my cost ill bestowed, but my time and pains well employed. For the profession of Arms hath in all Ages been the most honourable and glorious: From hence all Nobility derives its first Original, and from hence are descended the illustrious Families of Lords, Earls, Dukes, Kings and Emperours. And as by Arms men have rendered themselves worthy of the most glorious Employments; so there is nothing to be found in the Histories of the greatest Captains, but Acts of the greatest Virtue and Honour. The Valour of Alexander; the Integrity of Regulus; the Chastity of Scipio Africanus; the Justice of Fulvius Aulus; the Prudence of Cæsar; the Clemency of Augustus; the Generosity of Titus Vespasian; and the Conjunction of all these in our

The Publisher, &c.

Great Sovereign James the II. are sufficient examples and proofs of the truth of this. I shall therefore onely add, that History tells how the neglect of Warlike Discipline hath been the Ruine of many States and Countreys: And that by the orderly and constant practise of it, the Ancient Romans became at last great and mighty Conquerours: I wish the same to our English Nation, that by the Exercise and Practise of this most necessary and honourable Military Art of War, England may become no less prosperous at home, than mighty and formidable abroad.

R. Morden.

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A  
T R E A T I S E  
O F  
Military Discipline  
O R T H E  
A r t o f W a r

As now Practised.

**T**H E Profession of a Soldier is allowed to be so Famous and Honourable amongst Men, that Kings and Emperours have been enrolled in it.

The two chief parts of a Soldier are Valour and Obedience, for there is as much Honour gained by obeying patiently as by fighting valiantly : And as the greatest Vertue required in a Soldier is Obedience, so Industry is the chief Magazine wherein the force of all Discipline consisteth : All the Exercise and Labour of a Commander from time to time will be of no value, if the Soldier be not industrious and willing to labour after  
B a per-

a perfection, and that Soldier that makes not this Military Art his delight but is given to other pleasures and pastimes will never attain to perfection, and consequently never arrive to Wealth, Reputation and Honour. Therefore it behoves all in their several Circumstances and Capacities not to be wanting in their endeavours after the Exercise of the Arms, for 'tis not length of Life or Number of Years that teacheth the Art of War, but continual Discipline and Practise.

### Of Distance.

Military Discipline consisteth so much in Distance and Motion, that there is great Necessity of learning this Principle, for if a perfect form of Order be not observed, disorder must necessarily follow: the effect of which produceth confusion.

In our modern Discipline there are these 4 Distances in use.

- |                    |                                |   |                    |
|--------------------|--------------------------------|---|--------------------|
| 1 Close Order.     | } which is both in Rank & File | { | One foot & a half. |
| 2 Order.           |                                |   | Three foot.        |
| 3 Open Order.      |                                |   | Six foot.          |
| 4 Double Distance. |                                |   | Twelve foot.       |

There are 3 several Distances to be performed,  
1st. In *Marching*, the Distance between File and File is 3 foot, between Rank and Rank is 6 foot.

2d. In *Motion* as for the *Doubling* of Files and Ranks, for facing and countermarches between File and Rank is 6 foot.

3d. Distances for intire *Doublings* or *Skermishes* between rank and file is 3 foot.

4th. Distances for prevention of Canon-shot is 12 or 24 foot,

Double Distance.	12	} Feet.
Double Double Distance.	24	

For

For the better performance of closing and opening of Files and Ranks, take these following Observations, *viz.*

1 When Files open to the right, the left hand file must stand fast.

2 When Files open to the left hand, the right hand stands fast.

3 When Ranks open forward or to the Front, the last Rank stands.

4 When Ranks open backward (or to the Reer) the first Rank stands, &c.

5 When Files close to the right, the right hand file stands.

6 When Files close to the left, the left hand file stands.

7 When Files close to the right and left, then they close inward.

8 When Files close to the right and left by division it must be outwards.

9 When Ranks close to the front and reer, then the first and last rank stands.

10 When Ranks close to the midst or right and left inwards, then they close toward the two middlemost Ranks.

### *Of Facings.*

Facing is the turning and altering of the aspects to either hand, *viz.* right, left, Front or Reer. Facings are intire or divisional: intire facing is when the Aspect or Face of the Company is directed one way, *viz.* to the right, to the left, to the right about, to the left about.

Divisional Facings are divers ways, *viz.* to the right and left, to the right and left inward.

Facings are carefully to be observed and practised as the ground-work of Military Discipline, as may appear by these 2 following Commands.

[*Command.*] The two first Ranks stand. The two last Ranks face about. The rest of the Body face to the right and left, and march all.

To reduce them, 1. Face about to the right, march and close your divisions, 2. Face to your Leader.

[*Command.*] Musqueteers face to the right and left. Half files of Pikes, face about to the right, march all.

To reduce them. [*Command.*] Face all about to the right, march and close your divisions, face all to your Leader.

### *Of drawing up of a Company.* Plate I.

First know that a file is a sequent Number of men standing one behind another from the Front to the Reer in a right line, as BH.

2. A Rank is a row of men standing or marching shoulder to shoulder even a breast in a strait line from the left to the right, as AB.

3. In preparation to exercise Files must be made up first, and being joyned together Ranks are made.

A Number of men thus drawn up as in A consisting of Pikes and Musquets there is according to the rules of Art, First the front or file Leaders AB. the Reer or bringers up GH. EF. the half file Leaders CD, Bringers up to the front half files AG. the right Flank or Wing BH. the left Wing or Flank AGIK. half Ranks to the right BHLM. half ranks to the left AGNO is a quarter of the half

half right Wing BHPQ a quarter of the half of the left Wing.

*Of forming a Battalion. Plate I.*

A Battalion consisteth in Pike-men or Musqueteers, and these in the drawing of them up into Companies are divided into 3 parts, all the Pike-men make one part, which are drawn up in the middle, and the Musqueteers in two parts, one at the right hand the other at the left hand, as you may see Fig. AA. The several Companies being drawn up in the place of Rendezvouze, the Major or Officer in Chief commands the Serjeants to mark the half Ranks, that he may make the Pikes enter into the Center of the Musquets, then the most ready way to form a Battalion is by these words of command.

*Have a care to form the Battalion.*

*Musqueteers to the right and left outwards.*

*Pikes to the right and left inwards.*

*March interchanging ground.*

Then pikes and musqueteers interchanging ground, the first rank of pikes pass before the first rank of musqueteers, and march, both together through the intervals of the ranks till the pikes come to the Center of the Battalion separated from the musqueteers, and the musqueteers on the right and left separated from the pikes, when this motion is performed, the Officer reduces them as they were by this word of command.

*As ye were.*

Then every one faces the Officer, and so the Battalion is formed as at fig. A.

*Of Exercising.*

When the Regiment is in Battalia, the Officer in chief is to place himself before the body of the pikes about 40 paces from them, so that he may the better observe what is done, and be the more easily understood by the whole body ; the Commission Officers are to take their posts at the Head of the Battalion as the Colours are drawn ; the Serjeants ought to be two on each rank, at the right and left and the rest at the Reer ; the Drums one half on the right and the other on the left, ranging directly with the first rank of the Soldiers ; the Hoboys on the right of the Drums, &c.

Before you begin the Exercise ; the first word of command is *Silence.*

The next word of command is *Files, open to the Right* (or to the left) *to your Order, march.*

At which word every Soldier turns to the hand named, and the Serjeants on the flank lead the ranks, which are then files, directly forward with their Halberts advanced ; In this motion, no man is to stir till his Leader be four foot from him, and then to move and keep at that distance, and if they move to the right, every man is to observe his left hand man, and if to the left his right hand man, that is, to keep in a strait line and equal distance to their right hand man, and file Leader, by whom all the rest are governed ; when the Officer sees the files are sufficiently opened, which is as soon as the last man but one of the first rank stirs his foot ; He says to them *Halt, as you were, or to your Leader.*

*Even your Ranks, straiten your Files.* Here the Captains and Lieutenants are to carry their pikes  
com-

comported when they move to the right or left and the Colours to be advanced. The Sergeants are to have a care to keep the Ranks even at 12 foot distance, and the Files at 3.

All things thus disposed the chief Officer gives this word of command to the Officers at the head of the Battalion; [*Gentlemen Officers have a care of the Exercise;*] at which word of command the Musqueteers are to pull off their right hand Gloves, and put them under their Girdles, and the Pike-men are to joyn their left hands to their Pikes even with their Shoulders. Then, [*Officers take your posts of Exercise in the Reer. March.*]

The Officers facing to the right about, the Captains marching in one rank, and the Lieutenants and Ensigns in another, till they come into the Reer, and place themselves in Ranks, the first 13, and the other 11 paces from the Soldiers. And at the same time 6 of the Sergeants at the Reer, march through the intervals of the Files into the Front, and post themselves six paces advanced before the Commander in chief where they are to range themselves in a parallel Line with the Battalion to keep the Front clear.

Now the Musqueteers being shouldered, and the Pikes advanced, silence being commanded, the Officer in chief commands as followeth, *viz.* *Order your Pikes, To the Right, To the Right, To the Right, To the Right: To the Right about; As you were. To the Left, to the left, to the left, to the left: To the left about; As you were.*

### *Exercise of the Fire Lock.*

The Soldiers are to have a care to make no motion untill the word of Command be given and

ended ; for that the handling of Arms and the motion must be done at the same time.

*Musqueteers have a care to the Exercise ; Carry your Arms well. Lay your right hand on your Musquets. Poize your Musquets. Rest your Musquets. Cock your Musquets. Gard your Musquets. Presents. Fire. Recover your Arms. Half bend or half cock your Musquets. Clean your Pans. Handle your Primers. Prime. Shut your Pans. Blow off your loose Corns. Cast about to charge. Handle your Chargers. Open them with your Teeth. Charge with Powder. Draw forth your Scowrers. Shorten them to an Inch. Charge with Bullet. Ram down Powder and Ball. Withdraw your Scowrers. Shorten them to a Handfull. Return your Scowrers. Poise your Musquets. Shoulder your Musquets. Poize your Musquets. Order your Musquets.*

### *Exercise of the Pike.*

*Pike-men take heed. Advance your Pikes. To the Front, Charge. To the Right ( 4 times. ) Charge. To the Right about. Charge. As you were. To the Left ( 4 times. ) Charge. To the Left about Charge. As you were. Charge. Advance your Pikes. Shoulder your Pikes. Charge to the Front. As you were. Charge to the Right. As you were. Charge to the right about. As you were. Charge to the Left. As you were. Charge to the left about. As you were. Port. Comport. Charge to the Front. Trail. Charge. As you were. Advance your Pikes. Musqueteers take heed. Poize your Musquets. Shoulder your Musquets. Musqueteers make ready.*



*Of the Exercise of the Pike and Musquet together.*

The Pikes being advanced, and the Musquets shouldered, the Command is: [*Musqueteers make ready.*]

Here the Musqueteers are distinctly and orderly to perform every posture of the Musquet together, till they stand guarded with their Musquets before them; and being ready, (*viz.* cockt) they are to bring up their Musquets strait before them, their left hands the height of their mouths, and with their thumbs on the Cocks, and their two fore fingers guarding the Pan. And the Pike-men at the same word of Command, [*make ready:*] are to bring their Pikes before them, to their *Recover*, their left hand to the height of their mouths; the butt-end of their Pikes in the palm of their hands, and are to charge as the Musqueteers rest their Arms, and face as the Musqueteers face: and at the word charge, the Musqueteers and Pike-men are to take care to bring down their Pikes and Musquets together (very quick) at a convenient distance, and to bring them up strait before them as quick, before they turn, to prevent clashing: and whenever they recover their Arms before them, to bring their right heels to their left insteps: and when the Pikes charge and the Musquets rest, to fall back with their right feet in a direct line. Then, *To the Right (4 times.) Charge. To the Right about, Charge. As you were. Charge. To the left (4 times.) Charge. To the left about. Charge. As you were. Charge. Recover your Arms. Half bend your Musquets. Poize your Mus-*  
*quets,*

*quets. Shoulder your Musquets.* Here the Pike men are to bring their Pikes from their Recover to their Advance. *Poize your Musquets.* - Here the Pike men are to joyn their left hands to their Pikes even with their shoulders. Then, *Order your Arms.* In ordering their Arms they must be sure to make a little stop before the butt-end comes to the ground, that they may come down altogether at once. *Pikes to your inside Order. Lay down your Arms. Quit your Arms.* After laying down their Arms and quitting them, they are all to stand up together. *To be Right about. March.* When the Soldiers have laid down their Arms, and quitted them, upon beat of the Drum they are all to draw their Swords, and run to their Arms, observing always to keep the points of their Swords upright for fear of mischief. When they lay their right hands on their Swords they must take hold off the Scabberd with their left hand. Then, *Return your Swords.* When they return their Swords, they must do it all at one motion. *Handle your Arms. Pikes to your outside Order. Poize your Musquets. Shoulder your Musquets. Advance your Pikes.*

*Officers, take your Posts at the head of the Battalion. March.* Here all the Officers are to march back in the same method to the Front of the Battalion as they went from it, & *per contra.*

### Of Military Signs.

There are two Military senses of Advertisment, the Ear and the Eye. And every Soldier ought to be very carefull, that by silence he may the better hearken to all Commands: and that by the vigilancy of his Eye, he may observe every Sign

Sign that may be given. There are 3 signs used in War. Vocal. Semivocal. and a Mute.

Vocal is when the word of Command is heard by or given to the Ear of every Soldier.

Semivocal is that which is given by the Trumpet to the Cavalry, and by the Drum to the Infantry.

A Mute is by signs to the Eye, as by the motion of the Colours, or of the hand of the Commander.

It is very requisite that every Soldier should learn and understand all Military signs and directions; for experience hath taught that he that is negligent in either, may not only lose himself but be the cause of the loss of many others.

### *Of the Postures of the Pikes and Musquets.*

A Posture is a mode or garb that we are used unto in the well handling of our Arms. And first of the Pike which in point of Antiquity and Honour craveth the precedency.

### *Directions for the Postures in exercising of the Pike.*

It is the part of every young Soldier to learn and practise in the first place the Postures of handling his Arms, which must be done by endeavouring to set some time apart for the exercising and practise thereof.

I. *Silence* is an excellent Vertue, and ought in the first place to be commanded and most diligently observed.

And here observe for all; that in the Exercise both of Pike and Musquet, the Feet are to be kept at a moderate distance; not too wide asunder

der nor too near : And be sure to keep your left heel fast, and to set your feet exactly : Or else you will never exercise well.

*Advance your Pikes.* With your right hand lift upright your Pike as high as you can well reach and take it with your left hand as low as you can and raise it till the butt end comes into your right hand ; then bring it between your Breast and Shoulder upright close to your Thigh.

*To the Front.* Lay your left hand on your Pike even with the Top of your Shoulder, and bring the Pike strait upright before you with a quick motion ; drawing in your right heel to your left Instep.

*Charge.* Fall back with your right leg, so that the Heel of your left foot may be directly against the middle of your right foot : Bring down your Pike extreme quick with a jerk, and charge Breast high ; your left Elbow under your Pike to support it, always holding the butt end of your Pike in the Palm of your right hand, and your left foot pointing in a strait line with your Pike.

*To the right 4 times.* Upon your left foot turn your Body to the right ; follow the former directions and charge.

*To the right about.* Upon your left foot turn your Body to the right about ; bringing your right Heel as before, and your Pike recovered charge as before.

*As you were.* This is but turning about the contrary way observing the same directions as before ; remembring always to bring your Pike strait up, and not to swing it about that so it may not clatter against the other Pikes.

*To the left 4 times. } { As you were.*

*To the left about. } { Advance your Pike.*

Use the Directions before given.

*Shoulder.* Your Pike advanced, lay your left hand on your Pike even with your Shoulder; fall back with your right Leg, and put back your right Arm as far as you well can, holding your Pike  $\frac{1}{2}$  a foot from your side; then taking off your left hand, bring up your right Leg and lay your Pike on your right Shoulder, your Elbow close to your Body, the butt-end  $\frac{1}{2}$  a foot from the Ground.

*Charge to the Front.* Fall back with your right Leg, and put back your right Arm as far as you can, then with your left hand bring the butt-end of your Pike backwards, turning the head of it with your right hand; then forsaking it with that hand take hold of the butt-end and charge Breast high, directly forwards as before, *Vide Charge.*

*Shoulder as you were.* You must now raise your Pike with both your hands, then forsaking it with your right hand, and turning the head backwards with the left, take hold again with the right as high as you can reach with ease, bringing up your right Leg and forsaking your Pike with your left hand, Shoulder as before.

*Charge to the right.* Bring your Pike up, and turn the butt-end backwards by your right side, taking it in the Palm of your right hand, turning your Body to the right upon your left foot with your right Leg behind your left, and charge as before.

*Shoulder as you were.* Turn about to the left bringing your feet as formerly directed, then with your left hand turn the head of the Pike to the

the right ; then taking hold of it with your right hand, hold it in both hands at a little distance from your Body as before, sloped at the same height as when shouldered, then bringing up your right Leg, lay it on your Shoulder.

*Charge to the right about.* Fall back with your Leg and Hand as before, and stand with your Pike in the same posture, then upon your left foot turn to the right about, bring the butt-end of your Pike to the right side falling back with your right Leg, level your Pike breast high, and charge.

*As you were.* Turn to the left about with your left hand, bring the butt end of your Pike by your left side, keeping the Spear-point exactly to the Rear, the same height as before, then laying your right hand as high as you can well reach, hold it from your Body as before, then bring up your right Leg and Shoulder.

*Charge to the left.* Fall back with your Leg and Arm as in the rest, and turn to the left, and with your left hand turn the butt-end of the Pike to the right, and bring up your right Leg, Charge.

*As you were.* Raise the Spear of your Pike with both hands, turn to the right, and fall back with your right Leg and Arm, the Spear directly to the Rear, holding your Pike as before from your side, bring up your right Leg and Shoulder.

*Charge to the left about.* Fall back with Leg and Hand as before, then with both hands bring the Pike over your head, keeping the Spear directly to the Rear, neither higher nor lower than when shouldered, then turning to the left about charge, as before.

*As you were.* Bring your Pike over your head with your left hand, falling back with your right leg, and putting back your right Arm as before, bringing up your right Leg and Shoulder.

*Port.* As charging to the Front only, you must not hold your Pike too low; and instead of resting it upon your left Elbow, now you must rest it between the Thumb and Forefinger with your Elbow close to your side.

*Comport.* Bring your left hand back, and stretch out the right as far as you can, at the same time grasp your Pike with your right hand, then leaving it with your left hand, fall back with your right Leg even with your left, close the Pike to your side, the Spear of your Pike about the height of your head.

*Charge to the Front.* Extend your right Arm as far as you can, advancing your right Leg at the same motion, and putting your left hand as far back as you can bring forward your Pike; then stepping back with your right Leg, take hold of the butt-end of it with your right hand and charge.

*Trail.* Face to the right about, and let the Spear of your Pike fall behind you; quit your right hand from the butt-end of it without stirring your left.

*Charge as you were.* Turn to the left about, and taking the butt-end of the Pike on the Palm of your right hand, charge as before.

*Advance your Pikes.* Bring up your right heel to your left Instep, and your Pike before you to the Recover; then bring your right foot even with your left, and your Pike to your right Thigh.

*Order your Pikes.* Lay your left hand on your Pike even with the Top of your Shoulder, then

sinking your left hand take hold of it with your right hand so, as when the butt end of it is upon the Ground your right hand may be against your Eye, keeping your Pike near your head, and the butt-end near the Latchet of your Shoe.

*Pikes to your inside Order.* Move the butt-end of your Pike on the inside of the middle of your right foot.

*Lay down your Pike.* Step forward quick with your left Leg, lay it down strait with your right hand.

*Quit your Pikes.* Bring back your left Leg even to your right, and stand up all together.

*Handle your Pikes.* Step forward with your left Leg quick, placing the middle of your right foot against the butt-end of your Pike, lay your right hand on your Pike as far as you can reach.

*Order your Pikes.* Raise the Pike with your right hand only, and fall back with your left Leg.

*Pikes to your outside Order.* Place the butt-end of your Pike at the middle, on the outside of your Foot. *Advance, As before.*

### *Directions for the Postures in exercising the Fire-lock Musquet.*

*Lay your right hand on your Musquet.* Turn the Barrel towards you, the lock uppermost, and lay your right hand just behind the lock, put the butt-end of your Musquet to your Shoulder.

*Place your Musquet.* Grasp your Musquet hard just behind the lock, facing to the right with a quick motion upon your left Heel. Bring your Musquet directly before you the height of your Gravat, resting your right Elbow on your right side, your left Heel being exactly against the middle of your right foot.

*Rest*



● *Rest your Musquet.* Let your Musquet sink down to your left hand, and receive the Musquet into it, just where the Scowrer enters into the Stock, not touching the barrel; keeping your right hand upon your Musquet, behind the lock, let your Musquet be held a little sloping, about  $\frac{1}{2}$  a foot from your side, as low as you can, without stooping.

*Cock your Musquet.* Put your right Thumb upon the Cock, and your Fingers behind the Trigger, and bringing your Musquet close to your Thigh, cock it.

*Guard your Musquet.* Your Musquet rested, your thumb upon the lock, and your fingers behind the trigger, bring up your Musquet with a quick motion, streight before you to your Recover, keeping your left hand as high as your mouth, and about  $\frac{1}{2}$  a foot from it, without stooping, bringing your right heel to your left instep.

*Present.* Fall back with your right foot, so that the left heel be against the middle of it, raising the butt-end of your Musquet to your right Shoulder, your right Elbow not higher than your Piece, bending your left Knee, and keeping the right very stiff, and your Musquet being levelled breast high with your fingers upon the trigger.

*Fire.* Then draw the trigger at one motion, keeping the body steady, taking good aim, and keeping the Musquet fast to your Shoulder, until you have the Word of Command.

*Recover your Armes.* Sink the butt-end of your Musquet, till you hold it upright in both hands, the left hand always as high as your mouth, and the right under the lock, bringing up your Musquet with a very quick motion, and your right heel to your left instep.

*Half bend your Musquet.* Falling back with your right leg, bring your Musquet to the Rest, laying your right thumb upon the lock, and your fingers behind the trigger, half bend it, by putting it close to your thigh, and then keeping your Musquet rested.

*Clean your Pan.* Wipe your Pan by pressing the ball of your thumb into it, then holding your Musquet in your right hand behind the lock.

*Handle your Primer.* Take hold of the great end of it, between the thumb and fore-finger of your left hand, your Arm backwards.

*Prime.* Holding your Musquet exactly level, put powder into your Pan, keeping your left foot directly to the front.

*Shut your Pan.* With your two first fingers, and casting back your Primer, bring your Musquet to the Recover, as there directed : Keeping your thumb on the top of the steel.

*Blow off your loose Corns.* Bring your Pan up to your mouth, standing upright, and at one strong blast, blow off the loose Corns, then letting your Musquet sink into the posture it was in before.

*Cast about to Charge.* Advance with your right leg, turning your Musquet the barrel downwards, bringing it to your left side, a little backwards in your left hand ; keeping your right foot Toe directly to the front, and your right heel over against the middle of the left foot, ballancing your Musquet in your left hand, the right hand joyned to the Muzzel, which must be held directly to the front a foot from your body.

*Handle your Charger.* Take it full in your hand, and place it underneath your Musquet, about an Inch from the Muzzel.

Open

*Open it with your Teeth.* Bring it up to your mouth, standing upright with your head, then bring your Charger to the Muzzel of your Piece, as before, and cover the mouth of your Charger with the ball of your thumb.

*Charge with Powder.* Put the Charger of Powder into the barrel, holding your Charger again under your Musquet as before.

*Draw forth your Scowrer.* Now let fall your Charger, and draw out the Scowrer at three motions, then hold it level the height of your Eye, your Arm extended.

*Shorten it to an Inch.* Turn the great end of your Scowrer towards you, and slip your hand till it comes to an inch of the end; letting it rest in a streight line below your right Breast.

*Charge with Bullet.* Take the Bullet out of your mouth putting it into the Barrel, and then put the great end of the Scowrer after it into the Muzzel of the Piece, and so stand.

*Ram down Powder and Ball.* Which is done by holding a handfull of the Scowrer in your hand, and your thumb on the top of it.

*Withdraw your Scowrer.* Turn the fore part of your hand towards the Muzzel, and at three motions draw the Scowrer, and hold or dart it, as before.

*Shorten it to a handfull.* Turn the small end of your Scowrer to your Breast and slip your hand till it comes within a handfull of the end, and hold it as before directed.

*Return your Scowrer.* Put it in the Stock of your Musquet, pressing it down with your thumb, then always remember to grasp the Muzzel of your Musquet with your right hand, your thumb strait out upon the Scowrer, and your Musquet

clear from your side about  $\frac{1}{2}$  a foot, and to keep the Muzzels all of a height directly to the front.

*Poize your Musquet.* With your left hand bring up your Musquet before you, and falling with your right leg even to your left, grasp your Musquet under the lock with your right hand, and poize, as before.

<i>Shoulder your Musquet.</i>	} {	<i>Poize.</i>
<i>As formerly.</i>		<i>As before.</i>

*Order.* Sink your right hand a little, take hold of the Stock with your left hand near the end of the Stock; then sinking that hand, take hold with your right hand an inch below the Muzzle, and let the butt-end sink to the ground, close to your right foot, the lock outwards.

*Lay down your Musquet.* Turn your Musquet with the lock upwards, and step forwards with your left leg, and right hand, and lay it upon the ground in a strait line.

*Quit your Musquet.* Fall back with your left leg, even to your right, and stand up.

*Handle your Musquet.* Step forwards with your left leg, and lay your right hand near the Muzzle of your Musquet.

*Order your Musquet.* Lift up the Muzzle of your Musquet, and fall back with your left leg, even to your right, turning the lock of your Musquet outwards, by the middle of your foot.

*Directions for the Postures in exercising the Match-lock-Musquet.*

*Lay down your Matches.* This is to be done at four motions, *Viz.* 1<sup>st</sup>. Turn the butt-end of your Musqueta little, flipping it as it lies on your Shoulder, and lay your right hand on your Match.

2<sup>ly</sup>. Extend

2<sup>ly</sup>. Extend your right hand, and foot before you, turning the Musquet again into its place 3<sup>ly</sup>.

You must stoop, bending the left ham, bringing the Match nearer your right foot, with in side.

4<sup>ly</sup>. Quit it, and stand up, bringing your right foot even to the left. *Lay your right hand on your Musquets. Poize your Masquets. Rest your Musquets.* As in the Exercise of the Fire-lock.

*Handle your Match.* Take your Match from between your third and fourth fingers, with your thumb and first finger of your right hand; the palm turned from you, your right Arm extended towards your right hand man.

*Blow your Match.* Bring up the Match to your mouth, turning your head a little to the right without stooping, and blow a strong blast.

*Cock and try your Match.* Bring your Match with a compass about to the Cock, and press it down with your Thumb, staying it with your two next fingers; then pull down your Cock to the Pan, and so raise or sink your Match, that it may fall just in the middle of the Pan.

*Guard your Pan.* Bring up your Musquet strait upright before you, the Pan even with your mouth, and about  $\frac{1}{2}$  a foot from before it, then lay your two first fingers upon the Pan, and your thumb behind it, and your right heel to your left Instep.

*Blow your Match.* As before, and keep your Musquet at that height.

*Present and open your Pan.* Raise the butt-end of your Musquet to your Shoulder, keeping your fingers upon the Pan, then bring your hand back to the Trigger. And observe the Directions as in the Fire-lock.

*Fire.* Recover your Armes. As in the Fire lock.

*Return your Match.* Hold your Musquet in your left hand, the Barrel towards you, your left Elbow resting on your Body : Take your match between your thumb and fore-finger of the right hand, your thumb on the top of it, turning the palm of your hand from you, take one end of the match between the third and fourth finger of your left hand, and the other end between the first and second finger, and then lay your right hand under the Pan of your Musquet.

*Clean your Pan.* Wipe your Pan hard with the ball of your thumb, falling back with your right leg, rest your Musquet, lay your right hand again behind the Pan on the notch of your Musquet.

*Handle your Primer. Prime.* As the Fire-lock,

*Shut your Pan.* With the palm of your hand : At this Command, casting back your Primer, bring up your right heel to your left instep, and your Musquet strait up before you ; your left hand the height of your mouth, and your right hand under the Pan.

*Blow off your loose Corns. Cast about to Charge.*  
*Handle your Charger.* Open it with your Teeth.  
*Charge with Powder.* Draw forth your Scowrer.  
*Shorten it to an Inch.* Charge with Bullet. Ram down Powder and Ball. Withdraw your Scowrer.  
*Shorten it to a Handfull.* Return your Scowrer.

These as in the Fire-lock. Poize your Musquet. Shouldr your Musquet, Poize your Musquet ( as before. )

*Order your Musquet.* Sink your right hand a little, take hold of the Stock where the Scowrer goes into it with the left hand ; then sinking that hand, take hold of the muzzel with your right hand, and let the butt-end sink easily to the ground,

ground, the Butt-end close to your right foot, about the middle of it, your right hand an Inch from the muzzle, and your thumb strait up to it; the Barrel of the Musquet backward, and your match at one end between the first and second finger of your left hand, the other end between the third and fourth finger, a large inch from the Cole.

The Exercise of the Pikes is to be the same with the Pikes and Fire-locks.

*Exercise of the Granadeers on foot.*

These are to draw up in Rank and File, in the same Order as the Musqueteers, onely three deep; and being shouldered the command is, *Lay your right hand on your Fire-lock. Poize your Fire-lock. Rest your Fire-lock. Cock your Fire-lock. Guard your Fire-lock. Present. Fire. Recover your Arms.* As in the Exercise of the Musqueteers. *Cast over to the left.* Then they are to lay their right hand on their Daggers. *Draw your Dagger.* Here they must hold it fast upright before them. *Screw it into the muzzle of your Fire-lock. Recover your Armes. Charge. To the Right ( 4 times ) Charge. To the Right about, Charge. As you were: Charge. To the left ( 4 times ) Charge. To the left about, Charge. As you were: Charge. Recover your Armes.* This is to be done with a quick motion, seizing the Fire-lock under the Lock with their right hand. *Cast over to the left.* Here they are to lay hold of their Daggers with their right hand. *Withdraw your Dagger. Hold your Dagger before you with the flat side towards you. Return your Dagger. Poize your Fire-lock. Half bend your Fire-lock. Clean your Pan. As the Musqueteers. Open your Cartridg-Box. Handle your Primer. Prime.*

*Return your Primer. Shut your Pan. Blow off your loose Corns. Cast about to charge. Handle your Cartridg. Open it with your Teeth. Charge with Powder and Ball. Draw forth your Scowrer. Shorten it to an Inch. Here you are to put it into the muzzel of the Fire-lock, and hold it there. Ram down Powder and Ball. Withdraw your Scowrer. Shorten it to a Handfull. Return your Scowrer. Poize your Fire-lock. As the Musqueereers. Shoulder your Fire-lock. Here the Ranks are to close forwards to six foot. Poize your Fire-lock. Sting your Fire-lock. That is, take hold of the sling with the left hand.*

*Handle your Pouch. With your left hand on the bottom of it, the right leg advanced, and your right hands all of a height. Open your Pouch. Take forth your Grenade. Here the right hand must be extended before you. Shut your Pouch; at once. Uncase your Fuse. Fall back with your right foot even to the left, and face. Handle your match. The 3 Ranks altogether. Blow your match. The first Rank onely falling back with the right Leg. Fire your Fuse. Deliver your Grenade. Here the second Rank is to march six foot before the first, with their matches ready to blow. Blow your match. Fire your Fuse. Deliver your Grenade. Here the third Ranks do as the second did. Blow your match. Now the other Ranks are to lay their left hand on their Hatchets. Fire your Fuse. Here they must raise their Hatchets.*

*Deliver your Grenade. Here the Serjeants are to take care that the first Rank stand, the second march six foot before the first, and the third six foot before the second, all with their Hatchets raised expecting the word of command : [Fall on.] Stepping forward with the left Leg.*



*Recover your Hatchet.* As in the handling it, return your Hatchet into the Frog of the Belt. *Poize your Fire-lock.* *Shoulder your Fire-lock.* As the Musqueteers.

*Granadeers make ready.* Here the first Rank make ready their Fire-locks, the second Rank handle their Pouch, and the third Rank their Hatchets. *The first Rank present.* Now the second Rank is to open their pouch, and take forth their Granade; and the third raise their Hatchets. *Fire.* Here the second Rank are to shut their pouch, and uncase their Fuse, and handle their match. *Recover your Armes.* Here without any word of command, the first Rank are to cast over to the left: Draw their Dagger, screw it into the muzzel of their Fire-lock, Recover their Armes, and charge, the second Rank to march six foot before them.

*Blow your Match.* *Fire your Fuse.* *Deliver your Granade.* Here they must poize their Fire-locks, and make ready, and the third rank as the second with their Hatchets. *Fall on.* *Recover your Hatchets.* *Recover your Hatchets.* Now the third rank is to march 12 foot before the first, charging the second to six foot, and the first return their Hatchets, and make ready their Fire-locks. *Recover your Armes.* Here they half bend their Fire-locks. *Cast over to the left.* *Withdraw your Dagger.* *Return your Dagger.* *Poize your Fire-lock.* *Shoulder your Fire-lock:* These as before.

*Face to the Right about.* *March.* Here the Officers are to take care that the Ranks open to 12 foot, and continue marching till they come to their ground, and there to halt without any command; *As you were.*

*Poize your Fire-lock. } } Lay down your Armes.  
Order your Armes. } } Quit your Armes.*

*Face to the Right about.* As the Musqueteers *March.* Being clear of their Armes, upon beat of Drum they must run to their Armes with a *Huzza*, their Daggers drawn, and their points upwards.

*Return your Daggers. } } Poize your Fire-lock.  
Handle your Armes. } } Shoulder your Fire-lock.  
Order your Armes. } } As the Musqueteers.*

### *Of the Exercise of the Horse.*

When a Troop or Squadron are to exercise their Carabines and Pistols being charged, and the Corporals having seen that all are ready, the chief Officer commands silence: and then,

*Lay your right hands upon your right Swords. Draw your Swords. Put your Swords into your Bridle hands. Lay your hands on your Pistols. Draw your Pistols. Cock your Pistols. Hold up your hands. Give Fire.* Then keep up their hands till the word of Command be given. [*Return your Pistols.*]

The same words of command are given for the other Pistol, and then the words of Command are, *Lay your hands on your Carabines. Advance your Carabines. Cock your Carabines. Present your Carabines. Fire. Let fall your Carabines. Take your Swords from your Bridle hands. Return your Swords.*

These are the chief motions which the Officers are to take care that they be exactly performed. Onely here note, that there is an alteration made in the manner of wheeling of Horse: The practice now is, when a Squadron of Horse is commanded to wheel to the right; that the right hand men keep their ground, onely turning their Horses head to the right, whiles the left comes about, *whereas*

whereas formerly the right hand men closed to the left; by which the Ranks were apt to be put out of order.

### *The Exercise of Granadeers on Horse-back.*

Granadeers have a care. Sling your Musquets out on your Caps. Right and left hand men of each Rank keep mounted. Clear your right foot of the stirrup. Here they must handle their Musquets, and cast them backwards over their Cloaks. Dis-mount altogether. Make ready your Links. Link your Horses to the left. March clear of your Horses. Here the second or third Rank marching through, and when clear handling their Musquets, shoulder your Musquets. Which is to be done marching, and here the Officers are to take care of the Ranks, and that the Files open three foot distance in the marching. Halt. Lay your right hand on your Musquet. Poize your Musquet facing to the right. Rest your Musquet. Cock and Guard present. Fire. Recover your Armes. By half bending your Musquets. Cast about to the left. Draw your Daggers. Fix them in your Musquet. Recover your Armes. Charge to the Front. To the Right, Charge ( 4 times.) As you were. To the left, Charge ( 4 times.) To the left about. As you were. Recover your Armes. Cast about to the left. Here the right hand must be on your Dagger. With draw your Dagger. Return your Dagger. Poize your Musquet. Clean your Pan. Open your Cartridge-Box. Take out your Primer. Prime. Return your Primer. Shut your Pan: Bringing your Musquet up quick before you. Blow off your loose Corns. Cast about to charge. Take out your Cartridg. Quickly shutting the Box, uncap your Cartridg with your Teeth. Load with Powder and Ball. Draw forth your

*your Scowrer. Shorten it to an Inch. Place it in the Barrel. Ram home Powder and Ball. Withdraw your Scowrer. Shorten it to a Hand full. Return your Scowrer. Poize your Musquet Before you. Shoulder your Musquet, Poize your Musquet, laying hold of the Slings with your left hands. Sling your Musquets. Handle your Pouch. Stepping forwards with your right Leg, your left hand at the bottom, and your right held up all of a height.*

*Open your Pouch. Take forth your Grenade. Shut your Pouch. Altogether at one motion. Uncase your Fuse. Falling back with your right Leg, even to your left, and facing to the Front.*

*Handle your match. The three Ranks doing together. Blow your match. The first Rank only falling back with the right Leg. The first Rank fire your Fuse. Deliver your Grenade. Then unsling your Musquets. Now the second Rank is to march through on the right, six foot before the first, with their matches ready to blow. Blow your Match. Fire your Fuse. Deliver your Grenade. Here they must unsling, and stand cockt and guarded; and the third Rank is to march through on the right, six foot before the second. Blow your Match. Fire your Fuse. Deliver you Grenade. Here as before: And the first Front is to march through six foot. First Rank present. Fire. Here the Daggers, are to be fixed in their musquets and the second and third Ranks are to perform in the same manner, one after the other, by the same words of Command. Recover your Armes. Cast about to the left. Withdraw your Daggers. Return your Daggers. Poize your Musquets. To the proper Front. Shoulder your Musquets. To the Right about. Taking up your first ground, and opening*

opening your Ranks in your march. *To your Leaders. Poize your Musquets. Rest upon your Armes. Lay down your Armes. To the Right about : March.* Breaking their Ranks, then the Drum beating, they draw their Swords, facing to the left about, running with a *Huzza* to their Armes. *Return your Swords. Handle your Armes. Recover and Poize. Shoulder your Musquets. Poize your Musquets. Face to the Right about. Sling your Musquets. March to your Horses.* The second and third marching and standing at their Horse's head facing to the Front. *Unlink your Horses. Fasten your Links.* Here shorten your Bridles: Put your foot in your *Sirrup*. Laying their Musquets over their Saddles. *Mount. Handle your Swords. Draw your Swords. Place your Swords.* In your Bridle hand. *Handle your Pistol, which is always the left first. Draw your Pistol. Cock your Pistol. Keeping your Thumb on the Cock. Present. The Cock as high as your head in exercising. Fire.* Still holding it up till the next word of Command. *Return your Pistol.* The same for the right Pistol. *Handle your Musquet. Unsling your Musquet. Mount your Musquet.* Here you may order the Musquets to be charged, and then command: *Cock your Musquets. Present your Musquets Sling your Musquets. Into the Air. Give fire.* Keeping the Muzzel till the next word of Command: *Sling your Musquets. Handle your Swords.* Taking them in your right hand; *March.*

### *Exercise of Dragoons.*

Supposing the Dragoons drawn up in three Ranks, with their Musquets advanced, and silence commanded; the word is: *Dragoons have a care, sling your Musquets, make ready your Links, clear your right foot of your Stirrup, dismount. Stand-*  
ing

ing at your Horse's head, here the six out-sidem  
 are to continue mounted, that they may take  
 care of the Horses. Link your Horses, to the left  
 march clear of your Horses, and shoulder as you march  
 Halt. Here the Battalion is to be formed in the  
 same method as the foot. Which is done by the  
 words of Command : Have a care of the Exercise  
 Officers to the Right about. Take your Post in the  
 Reer of the Battalion : Here the Serjeants and  
 Corporals falls into the Flank and Reer of the  
 Battalion, and the Commission Officers forms  
 Rank in the Reer. Dragoons have a care. Here  
 they are to pull off their Right hand gloves, and  
 place them under their Girdles. Lay your right  
 hand to your Musquet. Poize your Musquet. Rest  
 upon your Musquet. Cock and Guard. Present. Fire  
 Recover your Armes with the Cock half bent. Rest  
 upon your Musquet. Handle your Dagger. Draw forth  
 your Dagger. Fix them in the muzzle of your Mu  
 squets. Charge to the Front. To the right ( 3  
 times ) charge. To the right about, charge. To  
 the left about, charge. To the left ( 4 times )  
 Charge. To the left about, charge. To the right  
 about, charge. Recover your Armes. Rest upon your  
 Musquets. Handle your Dagger. Withdraw your Da  
 gger. Place your Dagger. Poize your Musquet. Rest  
 upon your Musquet. Clean the Pan. Open your Cartridge  
 Box. Handle your Primer. Draw forth your Pri  
 mer. Sink and Prime. Return your Primer. Shut  
 your Pan with your two Fore-fingers. Blow off your  
 loose Corns : At the same time recovering your  
 Armes, Cast about to charge. Handle your Cartridge  
 Take out your Cartridge, as the Granadeers, Open it  
 with your Teeth. Charge with Powder and Ball.  
 Draw forth your Scowrer. Shorten it to an Inch, against  
 your right Breast : Put it in the muzzle of your  
 Musquet ; Ram down Powder and Ball. With

em Withdraw your Scourer, shorten it to a handfull  
 as before. Place your Scourer. Poize your mus-  
 e le quets. Shoulder your Musquets. Poize your Mus-  
 quets. Rest upon your Armes. Lay down your  
 n the Armes. Quit your Armes. To the right about. March  
 the clear of your Armes, and Breck. At beat of  
 ercy Drum they are to return to their Armes with an  
 in Huzza, and as they run, draw their Swords, and  
 an every man is to stand over his own Armes. Re-  
 f the turn your Swords. Handle your Armes. Rest upon  
 rms your Armes. Poize your Musquets. Sling your  
 He Musquets. To the right about. March to your  
 an Horses. Unlink your Horses. Shorten your Bridles.  
 righ Put your left foot in the Stirrup. Mount. Fasten  
 Re your Links. Unsling and Advance your Mus-  
 Fir quets.

### Of Doublings.

Doublings are necessary and usefull for the  
 strengthening any part of a Battel, as occasion  
 shall require: And consist in these two Gene-  
 rals.

1. Doublings of Length. } } Front and Reer.
2. Doublings of Depth. } } Both Flanks.

There are six sorts of Doublings, Viz.

1. Of Ranks, when every Rank doubles into  
 the odd, and if the odd Ranks are to double,  
 Face the Body to the Reer, and the same word of  
 command will perform it.
2. Half Files. } Are said to be doubled when  
 } they shall double their Ranks
3. Bringers up. } into the Front.
4. The doubling of the Reer, is when the half  
 File doubles the Reer.

5. The

5. The Doubling of Files, is when even Files double into the odd.

6. The doubling of half Ranks, is when one Rank shall double the other.

All Doub-  
lings are per-  
formed by,  $\left\{ \begin{array}{l} \text{Passing through.} \\ \text{Counter Marches.} \\ \text{Intire or Divisional Doublings.} \end{array} \right.$

In the Doubling of Ranks, observe, that the Doubling of Files reduce them; so in the doubling of Files to any hand, the doubling of Ranks to the contrary hand, reduceth them also.

In all motions of doubling, observe, that they that are to double before they move from their places, are to advance, and poize their Armes; and when they have performed their Commands, they are immediately to conform to the same Posture, that those whom they double are in, whether it be at shoulder or advance.

All motions are performed in three steps, and first by stepping forth of the foot, which is next to the hand named; and for reducement to return by the contrary hand.

All intire Doublings are to be performed by Order, both in Rank and File, and all divisional Doublings, are to be at open order both in Rank and File, and in all motions observe your right hand man.

A Battallion may be strengthened by Doublings either in the Front, Reer or Flanks.

The Front  
and Reer may  
be strengthen-  
ed by,  $\left\{ \begin{array}{l} \text{Intire Doublings.} \\ \text{Intire Wheelings.} \\ \text{Divisional Doublings.} \\ \text{Divisional Wheelings.} \end{array} \right.$



The Flanks are strengthened or doubled, } by { Files.  
Half Ranks.  
Division. Wheelings.

The Commands are, *Ranks to the right, double; march. Ranks as you were; march. Ranks to the left, double; march. Ranks as you were, march.*

Here observe as for a general rule, upon all Doublings of Ranks or half Files; that though they are to turn to the contrary hand they doubled on, from the ground they doubled to; yet when they come to their own ground, they are always to turn to the hand they doubled on, which brings them directly after their Leaders.

The doubling of Files is performed in the same manner, and is the same thing with the reduction of doubled Ranks.

For doubling of Front half Files by the Reer, half Files with the Reduction, command. *Reer half Files to the right hand; double your Front; march.*

*Reer half Files, as you were; march. Reer half Files to the left hand, double your Front; march. Reer half Files, as you were; march.*

And for reduction let the Reer half Files without facing about stand, till the Front half Files have passed by, and then fall after their proper Leaders.

But if the Front half Files are to be doubled by the Reer, the Body standing still, the Reer half Files are to march extreme slow, and to observe well their right hand men.

For doubling of Reer half Files by the Front, half Files with the Reduction.

Command, *Front half Files, to the right about, double your Reer half Files; march.*

D

Here

Here the 2 front Ranks or front half Files, turn to the right about, passing on the right hand of the Rear half Files, and double into them, and then to face to the left about to their Leader, without any word of command. *Reduction. Front half Files, as you were, march.*

Here the front half Files are to march slowly, keeping three foot from the right hand men, inclining towards the left, which brings them directly to their former Ground.

## Plate II.

### *The manner of exercising Doublings.*

The Battalion being drawn up, if it be of Musqueteers onely, the Officer who exercises, gives the word of command, *Musqueteers, Shoulder your Muskets.* If it be a Battalion of simple Pikes, the Officer commands those that are to march to advance their Pikes, in these words, *Ranks that are to double to the Right, advance your Pikes. Ranks that are to double to the Left, advance your Pikes.* And this is a general Rule in a Battalion of Pikes, that always they who are to double advance their Pikes, and when they make a stand they fix their Pike upon the Ground.

But when the Battalion is compos'd of Musqueteers onely, the Officer gives the word of command, according to the usual Practise for Musqueteers alone, and Pikes alone.

*To the right, double your Ranks in Front: March.* To make your Doubling true, it is requisite, that the Souldiers parting from the left Foot, come to place themselves in the middle of the Distances of the Ranks which they double: Example A, as it is mark'd with little Points. If the Battalion be  
of

of six Ranks in depth, when they shall double by Ranks, either in Front or in Reer ; the Battalion shall loose one Rank of the depth of the Ground, and the Distances of the Ranks shall become double with those, with which they were double before.

To reduce your Battalion to its first Estate, you need no more than say thus, *Ranks as you were* ; and to double to the left, say no more than this, *To the Left, double your Ranks*.

To double your Ranks by half Files, you must say, *To the Right by half Files double your Ranks in Front : March*. You must give the same word of command to double to the left, by half Files upon the Wings, or in the Reer : Example B, to reduce your Battalion, you need say no more than this, *Ranks as you were*.

If you would have your Battalion double their Ranks in Front upon the Wings, it is requisite that from the half File to the close File, the Battalion cut it self in the half Rank, and that the half Rank on the left hand, face to the left, and that they double upon the Wings of the two, that have not stirr'd from their Ground : Example C.

This doubling serves to enlarge the Front, and to prevent being surrounded, when you fear to be assaulted in Flank.

## Plate III.

### Of Wheeling.

Wheeling is a Military motion which causes the Head of the Battalion, to turn on that side where the Flank stood, which is serviceable when the Enemy attacks the Wing of the Battalion ; or when you would attack the Enemy himself

himself in Flank. And as there is often a necessity in War to make or repel these sorts of Attacks, wheeling is a motion very necessary, which is thus perform'd.

The Battalion being drawn up as is mark'd A, the Officer gives the word of command, *March*. When the Battalion wheels upon the first head of the right hand File, it wheels to the right, when upon the first head of the left hand File, to the left. A Quarter wheeling is call'd the first wheeling as when the Battalion A comes to possess the place of the Battalion B, it wheels upon the Center E. A half wheeling, is call'd the second wheeling, which shall be performed when the Battalion possesses the Ground C. A Three Quarter wheeling, is call'd the third wheeling, when the Battalion wheels into the Ground D.

For better understanding of this, the Battalion A represents a Body ready to wheel, and the Battalion B represents a Body that has wheel'd.

The right Wing FH moves first, and in marching describes the grand fourth part of the Circles represented in the figure, and comes to range it self upon the corresponding right Wing mark'd with LG, so that all that Rank of men of the head of the File of the Battalion, comes to place it self upon the Rank EG of the Battalion B, and the left Wing ER makes onely little Quarters of a Circle, as the figure shews; to place it self upon the corresponding Line EG.

The Souldier who stands at the Angle E never moves from his Ground; but onely moves to the right, so that he is as it were the Center about which all the rest of the Souldiers wheel. And every Souldier makes greater or lesser Quarters of Circles, as they are more or less distant from the

the Center E. Thus the Souldier O makes the lesser Quarter of Circle OP: The Souldier V the Quarter of a Circle VT; and so of the rest.

Observe that to make this wheeling truly, that the Serjeants are always to keep themselves upon the Wings, that all the Souldiers may march with an equal pace.

### *Of Wheelings.*

Before you enter upon Wheelings observe,

1. To close your Ranks and Files to your Order.

2. That in wheeling you always keep a due distance to your Leader, observing your right and left hand man.

3. That such care and moderation be used in the motions, that the contrary Flank be not forced by running to disorder themselves.

4. That your Armes be of a like posture, *viz.* if the Musquets be poized, the Pikes are to be advanced.

When a Battalion is to wheel to alter the Front either to one hand or the other, or to bring the Front where the Reer was, the command is, *Wheel to the right or left*; if to the right, the command is, *Wheel to the right; march.* Then every man in the Battalion moves, and wheels from the left to the right; onely he on the right Angle turns very slowly, being the hinge on which the rest moves, but all the rest the further they are from him, the swifter must their motion be; and every man must be carefull to observe, what distance he is at in the File when commanded to wheel, and to keep that same distance from his right or left hand man. And the same method is to be observed to the right, if the Battalion be commanded to wheel to the left.

*Of*

*Of Wheeling when a Battalion or a Body of Men march in Division.*

*Wheel to the right.* Here the right hand man keeps his ground, and onely turns upon his heel, but the left hand man moves about quick, untill he makes an even line with his right hand man, and the Officer bids him stand, and the second Rank must not begin to wheel till they have taken the ground of the first, and so every Rank successively is to march directly forwards up to their Leader's ground before they begin to wheel.

*Of Wheeling by single Ranks.*

*Ranks to the right or left hand wheel; march.*

If to the right, the right hand man of every Rank is to stand, and onely turn to the right on the ground he hands on; and the rest are all to wheel together into one Rank at the word of command; *march*. The Reduction is, *Form your Ranks to the left; or, as ye were*: In the performance whereof, the left hand man of every Rank is to stand, and onely turn to the left; and at the word, *march*, the rest are to wheel into their places as they were.

*Of Wheeling backwards by half Ranks.*

The number of men ought to be even in every Rank, and the right and left hand man of every Rank being ordered to stand, and to turn to the right and left inwards: The word of command is, *By half Ranks wheel to the right and left backward, march*.

At which words the half Ranks separate, and fall back to the right and left hand men, making  
two

two Ranks opposite to one another: The Officers and Colours are to separate according, and to take their Posts. The Serjeants and Drums are to be on the right and left, the Reduction is, by half Ranks, *To the right and left inward, form your Ranks, as you were, march.* Here the right and left hand man of every Rank is to stand, and onely turn to the right and left inward, and the rest at the word, *march*, are to wheel, and they will be in the same marching order, as they were. Fig. 3.

### Of Countermarches.

These of all motions in this Art, being the least usefull to our latest mode of Discipline, though of great Antiquity and used by the *Grecians*, I shall be short in explaining of them, the knowledge of them being no burden.

All Countermarches ly under these 3 Heads.

1	{ Maintaining Loosing Gaining	of ground,	And are called	Chorean, or Cretan.
2				Lacedæmonian.
3				Macedonian.

In all which there is Coun- ter mar- ches of	{ Files. Ranks. Fronts. Reer Half- Files. Half Ranks.	When eve- ry Souldier shall fol- low his	Leader.
			Rank-man.
			File-leader.
			Bringer-up.
			Outside-men.

1. All these may be performed by intire or divisional Countermarches: In the Execution here-of your distance is to be, at six Foot of Rank and File.

2. When you are to countermarch to the right, the File Leaders are to step forwards with their right Legs, and face about to the right, passing down to their Reer, with their respective File following them, observing their right and left hand man, and must not turn before they are advanced to their File-leaders.

3. All intire Countermarches of Files or Ranks may be reduced by contrary Countermarches : If the Command be to the right, reduce them to the left : And so for the Countermarches of the Front, Reer or Flanks, into the midst reduce them back from the midst.

### Plate IV.

#### *How to form and order Battalions.*

The Art of forming Battalions instructs how to draw up a Body of Infantry in such order, and with so much caution before hand, that it may be able advantageously to withstand, and engage another Body of Infantry, though superior in number ; or a Body of Horse alone, or else a Body compos'd both of Horse and Foot, when attack'd in an open Field, where there are neither Hedges nor Ditches, nor any rising grounds to defend them from the Enemy. Now in regard the Pike and Partisan are the onely Arms proper to stop the fury of the Cavalry, and to prevent their breaking in upon the Battalion, the first thing that is to be done in drawing up this Battalion must be to form a Body of all Pikes, and it must be the chief care of the Officer that commands the Party, to dispose his men in such a manner, that they may not defend the Musquereers, but also the Colours and the Baggage, if there be occasion.

Now



Now to order a Battalion in this manner, the secret consists in the observation of three things; of which the first is,

1. That the Souldiers be so ordered as to stand with their Arms presented every way, and to make a Front on every side, to the end, that which so ever of their Fronts be assailed or attacked, they may be able to defend themselves; as I shall shew you, by the Example of a Body drawn up in form of a Cross.

2. To blunt the Angles, that is, so to order your Men, that the Angles of the Battalion may be very obtuse; in such a manner, that the two sides that form the Angle, joyn together, but with one Right Line onely. For the Angle is the weakest part of the Battalion, as being least strengthened by the Pikes. For the Souldiers which are next the Angle present their Pikes in Front, and not being able therefore to present toward the Angle, the Angle must of necessity lie open to the Enemy. So that the Ancients with whom square Battalions were great in use, flank'd their Angles with Little Bodies of Musqueteers mark'd ABCD; which are small Bodies posted in the middle of the Fronts of the Battalion, and with which sometimes they secur'd the Angles. True it is, that these little Bodies being easily cut off by the Cavalry, and beaten off from the Body of the Battalion, the farther use of them has been laid aside.

3. To leave a void Space of Ground in the Center of the Battalion, or middle of the Pikes, sufficient to receive and secure the Musqueteers, the Colours and the Baggage.

## Plate V.

*Of a square Battalion of Men drawn up in form of a Cross.*

That this may be done, it is requisite that the number of men designed to compose a square Battalion, be such a number as may be divided into four equal parts: Such are 16. 36. 64. 100 &c.

Then the Battalion is divided into half File and half Ranks, in this manner.

*The Word of Command.*

1. Half File of the Right hand half Rank stand fast. A.
2. File-Leader of the Right hand half Rank to the Right C.

*Order your Pike.*

C Moves to the Right to make a Front towards the Right Wing of the Battalion, and keeps his Ground.

3. Half File of the left hand half Rank, stand fast, B.

4. File-Leader of the left hand half Rank look well to your self D, march.

The half Rank D marches till the half File closure of the Angle mark'd 5, be advanced a little beyond the Souldier mark'd 7, of the right hand half Rank C, as appears in the second Figure.

5. They that have march'd, Order your Pikes D.
6. Half Files stand fast, AB to the left, march, stand.

The half Files having faced to the left, move toward the left Wing of the Battalion, till the Souldier 6. of the half Files A be advanced, a little beyond the Souldier 4 of the half Rank C.

7. *The half File of the Right hand half Rank to the left A.*

The Half File A faces to the left to make a Front without.

8. *They that have faced to the left, Order your Pikes.*

A Keeps his ground.

9. *Half File of the left hand half Rank, stand fast, To the Right, — March, — Stand.*

The half File B having faced to the Right, marches toward the Head of the Battalion, till the Souldier of the Angle 3, be near the Souldier 9, of the half Rank D, and the Souldier 8 of B, be near the Souldier 2 of A, as appears in the Figure 2.

10. *They that have marched to the left, — Order their Pikes.*

Then B makes a Front towards the left Wing, and the Cross is formed.

If you would Blunt the Angles, you must have other Pikemen, and place them according to the Rule which we shall give you in the next page.

Instead of blunting the Angles, you may sometimes plant small Pieces of Artillery, or else set Wagons or Carts for the security of the Battalion.

## Plate VI.

*A General Rule for the blunting or filling up the Angles of the Battalion.*

Every little Body that requires the blunting of its Angles, ought to be compos'd of a Square  
Number

Number of Men, as of 4 9 16. 25. 36. 49, &c. Therefore you must place the Men in Rank according to Arithmetical Progression or Proportion of which the Interval, Excess or Difference of the Terms must always be two: Thus, having placed the first Man at the Angular Point A of the Figure 1, the second Rank shall be of three Men as being a Number of which the Excess, Interval and Difference is Two in respect of One. The third Rank shall be of five Men, which is a Number that exceeds three by two. The fourth shall be of seven; the fifth of nine; and so forward, still encreasing every Rank by two Men more than the Rank which is before, according to that same Arithmetical Progression, which has always two for the Interval or Difference of the Terms.

Now to place these Men in due Order, you must imagine that the square little Body ACBD moves off the Ground T, upon the left of the Battalion Q; and when its last Rank AD, is advanced one pace beyond the Wing AD, of the same Battalion Q, it turns to the Right, and then the Souldier A of the second Figure comes upon the Ground A of the first Figure. The sides AD, AC, of the small Body meet together upon the sides that answer to one another AD AC of the Angle. Then you command the Men of the little Battalion to make a Front toward the Angle, and when they are drawn up according to this Arithmetical Progression, you cause them to make an out ward Front.

## Plate VII.

*How to frame an Octogon Battalion with Eight Fronts.*

Let it be a Battalion of 40 Pikemen drawn up four deep, and ten in Front. You may according to the same Method draw up like an Octogon any Number of Pikemen, that shall observe the same Proportion of 4 to 10, between Front and Depth, as 8 in Depth, and twenty in Front, for 16 in depth and 40 in front, or 32 in depth and 80 in front. For in this Example I have chosen this little Number of Pikemen, to give the more light to the ordering and disposing of a far greater Number.

*The Words of Command.*

1. *The two Right hand Files, and the two left hand Files stand fast, AB IL.*

2. *The half File of the two Right hand Files face to the Right, B.*

3. *The half File of the two left hand Files, face to the left L.*

4. *Files of the Wings, march.*

The half File B moves into the Ground 4. L. moves into 5. A moves into 7. and J into 8. which four Bodies are designed to blunt the Angles.

There remains afterwards upon the Ground of the Battalion the six Files CD GH. which must be opened by half Ranks, and half Files to form the Cross of the third Figure, and to clear the Ground of the Center, by a Quarter Wheeling.

5. *The half File of the Right hand half Rank C, half turn to the Right, Order your Pikes.*

C Makes a Front towards the Rear, and keeps his Ground.

6. *File*

6. *File-leader of the Right hand half Rank to Right G, march, stand.*

The three Files G make a Front toward upon the Right Wing, and advance on that side two or three Paces beyond their Ground; and so that which was a File is become a Rank.

7. *They that marched stand fast, G to the Right a Quarter Wheeling.*

The three Files G, make a Quarter turn to the Right, and wheel about the Souldier R, in like manner as the Right Wing TY of the first Figure and become placed as you see the 2. Figure where the three Files G are marked with the same Letters as they are in the Body of the first Figure.

And because that after the wheeling they make a front toward VR, to the end they may make a Front outward on the side of VXY, [ the next Word of Command is; ]

8. *To the left, ——— Order your Pikes.*

9. *File-leader of the left hand half Rank, stand upon your guard, H march.*

Take notice in the 2. Figure of the three Files H, marked with little Points. These you cause to march forward along the Line marked PM QF, to gain the Ground H marked with three great Dots in the same Figure. But to gain this Ground, they march beyond the Ground of the Battalion, till the second Rank pointed PN have advanced three Paces farther than the Flank YT of the three Files G, which then make a wheeling; which will happen when the Souldier P shall be upon the Ground Q, and that the Souldier M shall come upon the Ground F, at what time the Word of Command.

10. *To the Right, — March.*

To make a Front toward the three Files G, and when they shall come to be three paces from the Rear of the three Files G, then command 'em.

11. *To the left, Rest your Pikes.*

Then they will make a Front outward, and so all keep their Ground.

12. *The half File of the left hand half Rank, and fast, D March, —stand.*

The half File D, advances two Paces beyond its Ground.

13. *To the Right, —a Quarter Wheeling.*

The half File D makes a Quarter Wheel about the Souldier Z, as you may see in the third Figure, and because that after the wheeling, they make a Front inward toward the Center, therefore to change the Front outward, the Word of Command is :

14. *They that made the Quarter Wheeling, wheel by half Conversion to the Right.*

The Cross being thus made, you bring the four Files upon the Ground, 4, 5, 7, 8. and blunt the Angles according to the foregoing General Rule.

## Plate VIII.

*The manner of drawing up a Battalion in a Hexagonal Figure, with a void space in the Center, and the Front of the Battalion five Times exceeding the Depth.*

We suppose the Battalion to consist of 720 pikemen, twelve deep and 60 in front, which is to be drawn up into an Octogonal Figure like that marked thus 8.

The Battalion being drawn up in the large black draught of the first Figure, to bring it to the Square marked with Points in the same Figure,

gure, the following Words of Command are to be made use of.

1. *The twelve Files of the Right Wing, of the twelve Files of the left Wing, stand fast, CD, PA*

2. *The six Right hand Files of the Right Wing and the six left hand Files of the left Wing, CD, A*

3. *They that have advanced double their Files toward to the Front and Reer.*

A Takes the Ground V, B takes the Ground T, C takes the Ground O and D possesses R.

4. *They that have had the Word of Command, and they that have doubled, stand fast VPT, OQR.*

5. *Middle Files stand fast, ME.*

6. *Advance your Pikes, Middle Files EM.*

7. *The half File of those that advanced the Pikes, wheel by half Conversion to the Right.*

8. *March those that advanced their Pikes, till the first Rank be advanced one Pace farther than the first of the Files that doubled Front and Reer.*

M and E Move and change into the Ground marked with the Points M and E, and form the Square represented by the same Points, which afterwards to be considered in the Figure K.

9. *The six Right hand Files, and the six left hand Files that marched wheel by half Conversion in IFHH, which done, they make a Center toward the Center of the Battalion.*

10. *They that have wheeled by half Conversion to the Right, march toward the Center till the last Rank be all entered.*

I and F come upon the Ground Y, and HH upon the Ground GG where as they stand, they are caused to turn to the right and left, to advance forward, that is, Y fronting Y, and G fronting G, by which means YYGG, possess the Ground NNNN.



The Ground IY and FY becomes void.

Then the word of command is to be given to the two particular Battalions, OQRUPT, which in regard they make a front inward, you must order the Battalion OQR, to make a half wheel to the right, and the Battalion UPT, to make a half wheeling to the left, and by that means they will make a front inward, and you shall cause them to march to the Center, and the O and V shall possess the ground Y, Y and R and T shall possess the ground GG.

Then you must cut off Eight fourths of the Ranks ORUTLLLL, and reduce them into Triangles to blunt the four Angles that are next them, and the Battalion shall be formed after an Octogonal figure, as in the figure marked ♂, where you see the same letters made use of here, they answer to the same letters in the two other Figures.

You have 532 Musqueteers at 12 in depth, and 44 in front, there will remain 4. The 532 Musqueteers, shall serve for the Flanks of the Battalion of Pikes, and to that purpose you shall take 12 Files of their right Wing, which will make 144 Musqueteers, and as they will be equal in front to the Body of the Pikes marked E, you shall march them to the head of the said Body, and cause them to enter into the Center through the Intervals of the Pikes.

When they are advanced toward the Center, divide the Ranks in half, so that one half Rank shall march toward the Body of Pikes marked Q, and the other half Rank towards the Body of Pikes marked P.

After this take from the left Wing of the Musqueteers twelve files more, which make 144 men; and cause them to advance toward the Center

E

through

through the Intervals of the Pikes E, and then divide them by half files.

One half File shall advance toward M, and the other half File shall stand their ground behind the Pikes E.

For the 304 Musqueteers that remain, they shall make the two Files that surround the whole Body.

## Plate IX.

*How to reduce a Battalion with a void space in the Center.*

You begin with the Musqueteers which you command from the Center through the several fronts MPEQ, which together with those that surrounded the Body, you cause to rank and file themselves as they were.

As for the Pikes that form the Octogonal Body, you give them the following Words of Command.

1. *They that stand in the Angles to your Places O and R, resume their distances, and make the same front as Q. The Files V and T do the same in respect of P, and the Files LL observe the same order; in regard of the Pikes ME.*

2. *The 12 files of the right Wing, and the 12 files of the left Wing, that doubled Front and Reer, stand fast OQR, UPT.*

3. *March Files of the Wings that have received the word of command OQR and UPT, move off and march forward.*

4. *They that doubled Front and Reer, to your Places O and R, return to the Ground which is marked in the first Figure, by the Letters CD and UT, return to the Ground A and B of the first Figure.*

5. *The*

5. The Files that marched toward the Center, to your Places; the four small Squares NNNN, return to the Front of M and E.

6. The middle Files stand upon your guard, EM.

7. The half File of the middle Files half a Turn to the right M makes a front toward the same Center.

8. File-Leader of the middle Files, half a Turn to the Right, E makes a front toward the same Center.

9. March middle Files — E and M move forward till they come upon the Front CDQ. and PAB of the first Figure.

10. File-leader of those that marched, half a Turn to the Right, E returns to its first Front; and the Battalion is reduced.

## Plate X.

### *Of an Army in General.*

Squadrons of Horse are commonly composed of 80, 100 or 120 Troopers, and seldom exceed 100.

Battalions are made as strong as may be, the Pikemen always in the middle, and the Musqueteers on the Wings.

An Army is commonly divided into 3 Bodies which are ranked in 3 lines, the first line is called the Vanguard A, the second the main Body B, the 3d. the Reer-guard C, or Body of Reserve. The middle of these 3 lines consist of foot as D, and the Cavalry is on the Wings as at E. Sometimes the Squadrons are placed in the Intervals betwixt the Battalions, that so, when the foot hath fired and began to put the Enemy out of order; the Horse may more easily break in, and charge through those Intervals; and so make an intire

roul, and also in case it should happen, that the infantry should have the worst, having fired and charged ; then the Cavalry is immediately at hand to succour, and give them time to rally again.

If we consider the number of foot which compose a Battalion, which consist of about 1000 men ; and the number of Horse-men that make up a Squadron, which at most is not 200 ; it is that though there be but very few Cavalry in an Army, yet the Number of Squadrons is double, yea triple the Number of Battalions : So that for every Battalion, in the middle of each of the 3 lines, there will be 2 or 3 Squadrons in the Wings of the same line.

When an Army is drawn up in Battalia, there is 5 foot space allowed between each Horse-man, and 3 foot between each Footman, that is, for the front or distance of one file from another ; But when the Bartel begins, the files close, and the front is lessen'd about one half.

There is also left about 100 paces between the first line and the second, and 200 between the second and the third, that so the Troops if broken may have ground enough to rally on, which otherwise would not be sufficient.

In every line the Battalions are distant from Battalion, and the Squadrons from Squadron, almost equal to their Front ; so that the Front of a Squadron extending about 2 or 300 foot, the Intervals between two Squadrons shall be 2 or 300 foot more or less, and the Front of a Battalion, being between 170 or 180 foot, the interval between the two Battalions, shall be within a little equal to their front.

These intervals are left thus large because the Squadrons and Battalions of the second line, are placed

placed just behind the Intervals of the first. And likewise the Bodies of the Reer-guard are placed just behind the Intervals, that are between the bodies of the main Battel, that so by these Intervals, both may more easily advance against the Enemy ; and if the first line be broken instead of falling back upon the Troops of the second ; ( which must needs happen if the Bodies of all the lines made but files ) it might rally behind its own ground, and leave the interval free for the second line to advance, and maintain the other that gave ground.

## Plate XI.

### *Of the March of an Army in a Flat and Plain Countrey.*

The General having given out orders the Night before he designs to march the Army, let every one be ready to march the next Morning by break of day. The Horse and Foot shall repair betimes in the Morning, under their several Colours and Ensigns, to the place where every Company is to be drawn up.

All the Companies being drawn up, they shall begin to march, and must range themselves in Squadrons and Battalions, to be afterwards embattel'd in the Ground marked out by the Marshall of the Camp, or his Assistants.

The Marshal of the Camp ought in the first place, to be exactly enformed of the Condition of the Countrey ; through which the Army is to march, taking his instructions from the General and particular Maps of the Countrey, or from the information of the Countrey People.

He shall draw up his men in Battel array according as he thinks most convenient, or as the General shall have given him Order. If it be through a plain and open Countrey, which is convenient for the Horse Cavalry, the Artillery and Wagons, then let him extend the Wings of his Army, and observe the following Order.

He shall divide his Army into three Bodies.

That in the middle must consist of three thirds of the whole Infantry, drawn up in great Bodies and Battalions, each consisting of two or three Regiments.

Upon the Wings or Flank of this Infantry, must be placed the great Artillery, guarded by some Battalion of the Infantry.

Upon the right and left Wing of this middle line shall the Cavalry march, in little Squadrons each consisting of two Cornets. The rest of the Infantry marching in little Bodies, shall enclose between it and the Cavalry, the Baggage and Ammunition of the Army, with some field Pieces; as may be observed by the March represented in the Figure aforesaid.

## Plate XII.

*Of the March of an Army through a Countrey difficult to pass by reason of narrow and rugged Ways.*

In leading an Army from one place to another, there is no accident that can be met with, more troublesome to its march, than when it is constrain'd to pass through narrow Passages and long Lanes.

If these ways lye over Mountains, the Generals must send his Forlorns to post themselves upon the highest places, that look into the Bottoms round

round about, to discover whether the Enemy be there entrenched, and to observe the Situation of the Plains, striving all along to gain Intelligence of the March of the Enemy.

If the Roade be covered with Trees, care must be taken to send a day or two before the Army arrives, Carpenters, and Planceers with a good guard of Horse to defend them while they cut down the Trees, and enlarge the ways, to the end the Army may march in a Body. First you shall send before a Squadron of Horse; and after them a Body of Horse, that must be well backt by a Body of Infantry, then shall follow the Train guarded by some Battalion of Foot; then shall the rest of the Army follow, secured by a good Body of Horse that brings up the Rear. But if the Countrey be so rugged, as not to admit of any passage for Carriages and Artillery, of which notwithstanding there is a necessity; or supposing the Rode lye over Mountains, Hills, Valleys, Rivers and such like difficult places, then must the General cause new Canon to be cast upon the way in convenient places, turning a little out of the Rode. In the mean time his Scouts must be always abroad to gain intelligence of the Enemy, and when he is perfectly informed how the way lyes, and that he has made a passage for his great Guns, he must divide his Army into two Bodies; of which he shall cause the one to march file by file; after them shall follow the Artillery, and the second Body or Rear-guard.

## Plate XIII.

*Of the March of an Army through an Enemies Countrey.*

If there be a necessity to carry the War into the Enemies Countrey, either to besiege some place therein; or else for the Relief of some place already besieged, whether the Enemy be beaten in the Field, or whether he still keep the Field to put new supplies of men and provision into the Garrison, or hinder provision from being brought to the Enemies Camp.

Upon all these occasions whether he encamp in the Field, or quarter in Villages, the General must take care that the Commissary General of the Victuals, and the Treasurers at War be diligent and Faithfull in their Charge in providing, and furnishing the Army with Victuals.

If the Enemy has been routed and be not in a condition to recruit, then you may march as in the preceding pages, whether the Countrey be open or streighter.

But if after a rout the Enemy be rallyed again, so that they are able to make head against the Victor, then it behoves the General to march close; and to the end the Army may be in a condition to open their passages and make their own way, it must be divided into little Bodies.

The Cavalry must be placed upon the Wings, in front and in the Reer of the Bodies. The Infantry must march in the middle, and in a gross Battalion. The Artillery upon one side guarded by some old Regiments, as you see in the Plate.



## Plate XIV.

*Of the March of an Army in a close and cover'd Countrey.*

An Army never suffers greater inconvenience, than when it is forced to march through a Countrey abounding with Woods and Rivers, especially if it be in the Enemies Territories. For besides that it is impossible to march in order, the ways and passages in these sort of Countries are for the most part strangely incumber'd with Woods and Rivers.

Now an Army being constrained to pass through such Countries, it behoves the General to send his Engeneers with a Party of Horse, and some Companies of Foot, and Pioneers; to fill out the Ditches, raise Bridges and build Boats, and in a word, to do what ever the Engeneer shall command and see fitting; to facilitate the march of the Enemy. In the mean time the General must be carefull to scoure the Country with his Cavalry, to the end he may get intelligence of the Enemy, whether he be in the field, and which way he marches, for the better avoiding Ambuscado's and Surprizes. And then it is that a General ought to have his spies most active and busie to discover the designs of the Enemy, which is the greatest Advantage a General can wish for at such a Conjunction.

The General must inform himself by his Scouts of the condition of the Enemy, which he must not believe but upon the confirmation of many; and knowing that he lies expecting him at such a pass, he shall advance with his Army in the best Order the Countrey will permit.

But

But if he understands that the Enemy waits to surprize him, at such or such a narrow pass or crossing a River, where he must file off his men, or that the Countrey people, are entrencht with some Companies of Foot in any Village or Castle, then he must call a Counsel of War to consider what is to be done.

## Plate XV.

*The manner of encamping an Army consisting of Horse and Foot.*

The newestt manner of encamping an Army, is to dispose it into two lines, with a reserve. But then we must suppose the Ground to be convenient.

Care is then to be taken that between the one and the other line, there be the distance of Three hundred paces, at 3 Foot to a pace.

That all the Squadrons of Cavalry of each line have allowed for every one five and thirty Paces of Ground, and that there be as much void space between the one and the other, to the end that one Squadron may pass through the intervals, if there be an occasion to engage.

The Battalions of infantry which are strong, and encamped in Battalia six men deep, must have fourscore paces of ground allowed them, more or less, according to the situation of the Place.

Between the Squadrons of Horse and the Battalions of Foot, of the same line must be left the distance of forty or fifty paces. As for the Artillery, the great Guns must be planted upon the first line of the infantry, in such places as shall be thought of most advantage.

The Baggage and Ammunition, must be secur'd between the second line and the body of the reserve upon the right hand, and the provisions upon the left: or next to the Tent of the Commissary General of the Provisions.

The Quarter-Master and Sargeants as well of Horse as Foot, are to pitch their Tents at the Head of their Squadrons and Battalions, the other Officers Tents behind. The Parading place, and the Principal Corps Du Gard, are to be always at the head of the Camp, where the Arms, Colours and Ensigns are lodged.

The Horse are to be posted on the Wings, and the foot on the middle.

To every Squadron consisting of 3 Troops, and 50 men in each Troop, some allow 50 paces. And to every Battalion consisting in 16 Companies, and 50 men in each Company, 100 paces for their encamping.

The Dragoons are never to be encamped in the Body of the Army, but have their Camp at the Head or on the Wings on that side, where the greatest danger is, serving always as an outguard for the Army.

Every Regiment ought to have a guard at the Head of their Camp, and the Major General for that day takes care to place the great Guard in a proper place and distance from off the Army, towards the Enemy: Choosing for that purpose a place where all the Avenues may be discovered.

## Plate XVI.

*Of encamping a Battalion of Foot.*

The ground allotted or commonly assigned for encamping a Battalion is 100 paces, which by the Quarter-Master is divided thus, *Viz.* For each Hut 7 Foot square, 2 Foot to the By-streets, and 15 Foot to the great streets, and 2 Foot distance between the Huts, and every Company containing 50 men ought to have 10 Huts.

The Kitching must be marked out at 12 Foot distance from the last Row of Huts, and are to be placed just over against them, so that the streets may be open quite through for the Officers to pass easily to the Head of the Camp, as there shall be occasion. The length of the Kitching is to be about 9 Foot, and the Breadth 6 Foot.

There is about 30 paces distance between the Soldiers Kitching and the Captains Tents; and 20 paces distance between the Captains Tent and the Front of the Subaltern Officers; and the remaining Ground is for the encamping of the Field Officers, and the Captains Equipage; the Sarjeants Huts are to be at the Head of the Soldiers to open the contrary way, that is, to the Front.

The Surlers are to be encamped behind the Officers Tents, there must be 25 or 30 paces between one Battalion and another; and the Colonels, and Field Officers, and Staff Officers Tents are to be in the Center of the Battalion behind the Tents of the Captains.

The Pikes are to stand at 18 Foot distance from the Huts, the Musquers at 18 Foot distance from the Pikes, the Colours and Drums are to be set within the Hollow of the Pikes.

## Plate XVII.

*To encamp the Cavalry.*

To encamp a Troop of Horse of 100 Men, there is assigned them for the whole Troop 70 Foot in Front, viz. AB, and 200 in depth, viz. AC.

To two Horsemen is allotted 8 Foot in breadth and 12 in length, to make their Huts or Baraques as at D.

And for the Huts or Baraques for their Horses, there is allowed to each 4 Foot in breadth and 10 in length, as EE, the Men and Horses are both lodged in two Ranks as EG, the Horses heads stand towards the Huts of their Masters.

Between the Huts and Stables there is a Lane or Space 8 Foot broad, the Captains Lodgings or Tents are at the Head of the Baraques of his Troop, the whole Front of which he possesses; and the breadth of it is about 40 Foot, as at O.

Between the Lodgings of the Captain and the Troop there is a Lane or Space of 20 Foot broad, as at P.

The Lane betwixt the Stables is 10 Foot broad, viz. L, that so the Horses may have room to come forth.

Behind the Troops are posted the Surlers, divided from the Troop by a Lane 20 Foot broad, viz. R. If many Troops encamp together the Space between them is commonly 20 Foot.

We in *England* allow 3 paces for the length of a Baraque, and 2 paces distance the opening of the Baraques to the Stakes to which the Horses are fastned, and 3 paces for each Horses standing, and 10 paces for the Street, and the Ground allotted for a Squadron  
of

of 150 men is commonly 50 paces, and commonly 10 or 12 Baraques on a Row for every Troop of 50 Men, and about 2 paces distance from one Baraque to another; and 15 paces for the distance of one Squadron to another.

## Plate XVIII.

### *General Directions for encamping an Army.*

When the Camp-Master General, or Major General hath read the Number of the Horse and Foot, that are in the Army, he must proportionally cast up what Space of Ground will suffice to encamp them with all their Provision, Carriages, and so that neither for due Room the Soldiers be poster'd, nor by over large Spaces the Camp not sufficiently fortified.

This being of great importance, it will be requisite for him to understand well Arithmetick and Geometry, and to have in readiness sundry Plans and Models, and Forms of Camps, whereby he may suddenly resolve for any Number or Situation, what Form and Quantity is most convenient, and presently stake it out; assigning due place for every Regiment of Horse and Foot.

Before encamping he ought to consider if the Army consist much of Horse, that there be good store of Forrage nigh the Camp, and that the Camp be not subject to any Hill from whence the Enemy may with his great Artillery incommode it; Nor that it be so separated from water, that the Enemy may easily cut you from it; nor that it be so low as that the Enemy by cutting the Banks of any River, may drown the Camp. And if there be no great Rivers but onely Fountains or Wells of Water, then must good watch be kept

that

that they be not poysoned nor infected by the Enemy. In a running or moveable Camp the readiest Fortification is to impale it round with the Carriages chained together, bending the Artillery that way where most suspicion is, the Enemy will approach, and if time permit to cast some Trench also without the Carriages, as in Plate XVI, where A is the General's Tent, B the Guards of the General, C the Park of the Artillery with its Retrenchments, D the Waggon for the Ammunition, E the Waggon for Provisions, F the Soldiers Huts, G the Gourt of Guard, H the Retrenchments, I the place for drawing up the Army into Battalia.

## Plate XIX.

*The manner of ranging a Battel in order to a present Engagement.*

A General is sometimes constrained to a Battel, when he is in an Enemies Countrey upon the false report of his Spies ; especially of such as play fast and loose receiving pay from both sides, which are a sort of People very dangerous. Sometimes through the ignorance of those that command the Parties who seeking to get intelligence of the Enemy, never inform themselves thoroughly of their March.

Sometimes he engages himself voluntarily, designing to relieve some place that is besieged. But which way soever it be, that he is forced to come to a Battel, he must endeavour to order his men after the following manner.

He shall range his Infantry in Battalions, every one consisting of five or six hundred men, or a thousand men, which are the most convenient num-

numbers, with the Numbers between to form a just Body. For those Bodies that exceed the Number of a thousand, can never be drawn up conveniently upon all sorts of Ground; and such as are under 500 will never be strong enough to resist at the same time the fury of the Enemies Horse.

His Cavalry which should be always drawn up upon the Wings of the Infantry, must be drawn up in Squadrons, consisting of a hundred or thereabouts. But the best, and those that are most serviceable to break the Battalions of the Enemy, are those that consist of 150 or 200 at most; for if they exceed the Number of 200 they are not easily nor conveniently drawn up, by reason of the length of their Ranks, and the Number of Horses. And thus it was that the Count de Schomberg embattled his forces at the Battel of Montesclar, which he wone from the Marquess of Caracene.

An Army which is embattelled in small divisions of Horse and Foot, is not so easily routed as that Army which is embattelled in great divisions. And small divisions are much more ready than great: For besides seconding one another, and wheeling upon all occasion, they will likewise out-front an Army which is embattelled in great divisions: The which is one of the greatest advantages that can be taken in the embattelling of an Army. Small Divisions of Horse and Foot are also much readier for service, where you cannot embattel them according to the Rules of Art by the nature of the place, or with inclosures, or where the brevity of time will not give you leave, besides small Divisions are much more troublesome for an Enemy to deal withall than, an Army that is embattel'd in great Divisions.



## Plate XX.

*General Directions for giving of Battel.*

When a General intends to give Battel, he must have regard to these principal things: *Viz.* He must never suffer himself to be forced to fight against his will, and never to fight his Soldiers when their Spirits are dismayed and cast down; care must be taken to choose a place for the Battel fit for the Quality and Number of your Soldiers. If you fear to be enclosed by a great Number, you ought to shelter your Flanks, or at least one of them, by the nature of the place, as by a River, Wood, or the like. If weak in Cavalry you must avoid the Plains, or fight with Foot among your Horse. If you be strong in Horse, you must avoid strong passages, or enclosed places:

Directions are the life of Action, and the sinews and strength of Martial Discipline, and therefore Orders ought to be written before the Battel begin, that every Officer may know his duty, and be left without excuse.

For placing your Divisions of Horse, and Foot at their true distances, you ought to allow unto every Horse-man in the Front of the Divisions of the Vanguard and Battel, 6 Foot of Ground in breadth, and to every Foot-Soldier 5 Foot.

Also between every two Divisions of Horse and Foot, in the Vanguard of your Army to allow 100 paces of Ground in breadth of 3 Feet to the pace, besides what you allow for the Division of the Battel which is for the Reserve.

There ought also to be allowed between the Vanguard of the Horse Troops, 150 paces of 3 Feet to the pace; this Order must be observed both in  
 F placing

placing the Divisions of Horse and Foot, and the Vanguard Battel and Reer-guard of your Army, that the foremost Troops being put to recoil, may not fall upon those which should come up to relieve them, nor the Battel upon the Reer.

The best Regiments of Horse and Foot, ought to be placed on the Wings of the Army.

The Officers that lead the Divisions in the Vanguard of a Battel, ought to have special care to see, that the Divisions both of Horse and Foot keep their distances. But especially the Officers that lead the Divisions in the Vanguard of your Army, on the Flank of your Horse or Foot, they must be extraordinary carefull, that they close not with their Divisions in upon the main Body. And there is no one thing that the Officers care is required about in fighting a Battel, more than to see that such Divisions as they command keep their distances; otherwise it is impossible but some part of your Army, if not the whole, will be in a confusion before the Battel be half fought.

If it happens, as it most commonly doth, that when two Armies are embattelled one against the other, that the one Army out-fronteth the other, upon one of the Wings, and the other Army out-fronteth the other upon the contrary Wing, when both Armies come to encounter. Therefore let there be punctual Orders given to the Commanders, on the outmost Flanks of the Vanguards of the Horse, that if either Wings of Horse do out-front his Enemies Wing of Horse, that they advance easily, keeping their Order with that Wing of Horse, which they command as soon as their Cannon begin to play, and not before, and charge that Wing of Horse which they do out-front.

Command

Command also those Divisions of Horse, that out-flank your Enemies; that when they come within a near distance of your Enemies Troops, so to wheel with their Divisions, that they may be able to charge that Wing of their Enemies Horse on the Flank, at the same time when the rest of the Horse chargeth them in the Front: And if you out-front your Enemies Army on both Flanks, then both your Wings of Horse must observe the same Order.

But if you be out-flanked in one of your Wings of Horse, then the General ought to give Order to the Officers of that Wing, not to advance from the main Body of the Foot, but keep an even Front with the Foot untill the Enemies Horse come up close to them to charge them; or to order the Officers to draw up on the outermost Flank of that Wing of Horse that is out-flanked, the Reer-guard of Horse of the same Wing of Horse, with all the expedition that may be: or if any of your Division of Horse do front against the Enemies Foot, when you are out-flanked by the Enemies Horse, that then the Officers draw off those Divisions of Horse upon the outermost Flanks of the same Wing of Horse, which is out-flanked.

The principal Heads of War for Field-service, are the Art of Marching, Incamping, Imbattelling, skilfully to get good Intelligence, providently to get good Provisions for the Army.

In Matters of War the motions ought to be quick where the least motion of time oft marreth the whole business.

It is necessary in War oftentimes to change Counsels according to the variety of Accidents.

In Execution of Designs of War, good Judgment ought to ground them, and diligent expedition put them into Action.

The Office of a chief Commander is, a Subject capable of the greatest Wisdom that may be apprehended by natural means ; being to manage a Multitude of disagreeing minds, as a fit Instrument to execute a design of much consequence, and great expectation, and to qualifie both their apprehensions and affections, according to the accidents which rise in the course of his directions, besides the true Judgment which he ought to have of such circumstances which are most important to a fortunate end ; wherein our providence cannot have enough, either for learning or experience, to prevent disadvantages, or to take hold of opportunities.

It is not onely experience and practice which maketh a Soldier worthy of his Name ; but the knowledge of the manifold Accidents which arise from the variety of humane Actions, which is best, and the most speedily learned by reading History : For upon the variety of chances that are there set forth, he may meditate on the effects of other mens adventures, that their harms may be his warnings, and their happy proceedings his fortunate directions in the Art Military.

It is requisite also that a Commander be well acquainted with the divers and various ways of imbattelling, and well to understand the nature and reason of them, that so he may with knowledge apply them to the quality of any occasion.

I might have added the way and manner how to attack and defend any fortified Town, as also Military Stratagems, and Policies practised by  
valiant

valiant and prudent Commanders, whereby they have obtained miraculous Victories or escaped imminent dangers. But there is no science, or faculty whatsoever in multitude of parts, that may any way be comparable to the Art Military; wherein every small and unexpected Circumstance quite altereth the Nature and Design of the Action: And among the variable events of War, many unexpected occasions arise which gives present Advantage and Victory to him that is ready to take it, and many strange Chances so alter the Course of things, that no direction can prevent, nor foresight discern what may happen. So that one fault committed in War can never be repaired, and one hour causeth the loss of that reputation which hath been many years acquiring.

I will therefore only give this advice to all Governours that are to defend a besieged Town, that they have a special care of these three things. The first is, that from the beginning to the end of a Siege their law be such, that their Garrisons spend no more Victuals daily than Necessity requireth: The second thing is, that they do not vainly waste their Men or Ammunition, but so order the expence, that it may hold out with their Victuals; for often times prodigal expences and needless wastings have brought many Garrisons to want Necessaries for the defence of the Town, more than the pressing services and efforts of the Enemy: The third thing is, that they carefully defend the Outworks, especially the Mote and Body of the Town, with all the Care, Judgment and Valour that their Garrison affords, to lose all things inch by inch, and to quit nothing but by main force.

In the Course of War, a General or Commander shall meet with some occasions, wherein not onely to contend with men; but with Chances and Things which are to be overcome with no less difficulty than an Enemy, and are more dangerous, as Hunger, Discontent and Labour. But Industry commands Fortune; and Diligence by circumspect and carefull carriage, does prevail; it is necessary to joyn Judgment with Courage in all Martial Actions, for 'tis not the length of Life or Number of years that teacheth the Art of War, but continual practice and experience. I conclude with a saying of one of our English Generals, the Duke of *Albermarl*, who saying it was; That a rich publick Treasury prudently managed, and a People well trained in martial Affairs, were the two onely Pillars upon which God, that would preserve a Kingdom, State from Danger and Ruine.

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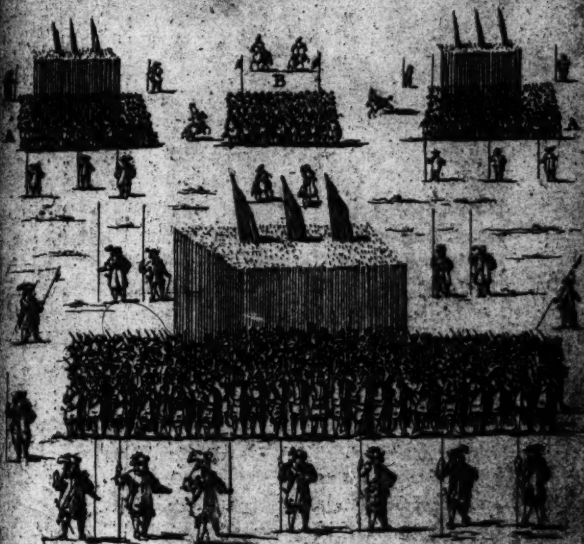
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Plate. I. S. P.



H . . . P V . . . L I Y . . . S N . . .  
 . . . . .  
 H . . . . .  
 D . . . . .  
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 A



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Plate. II

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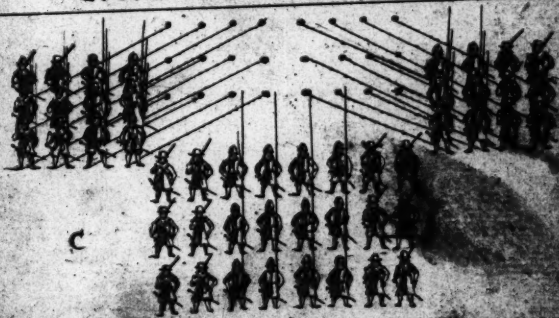
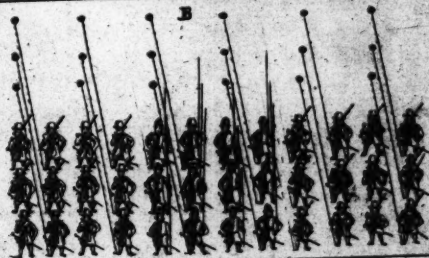
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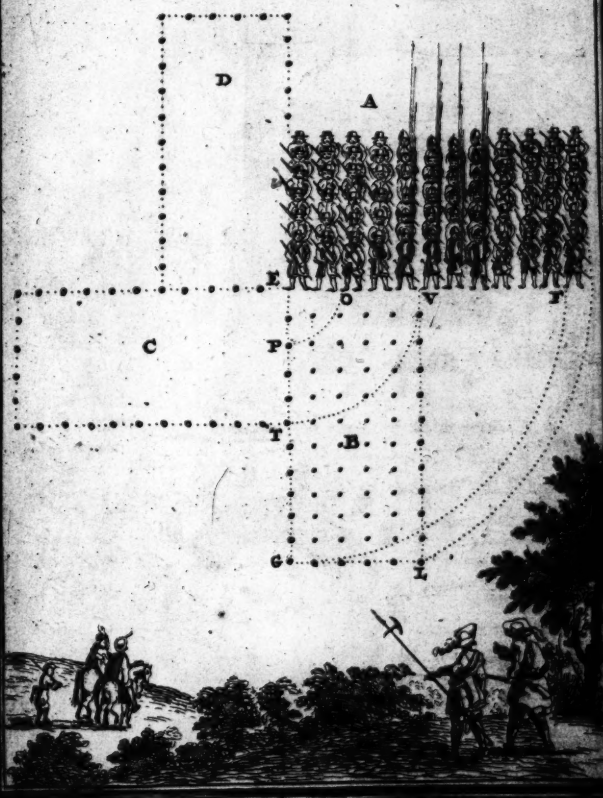
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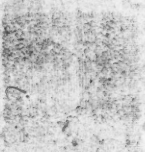
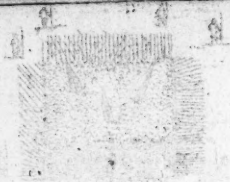


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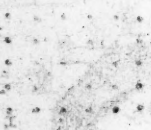
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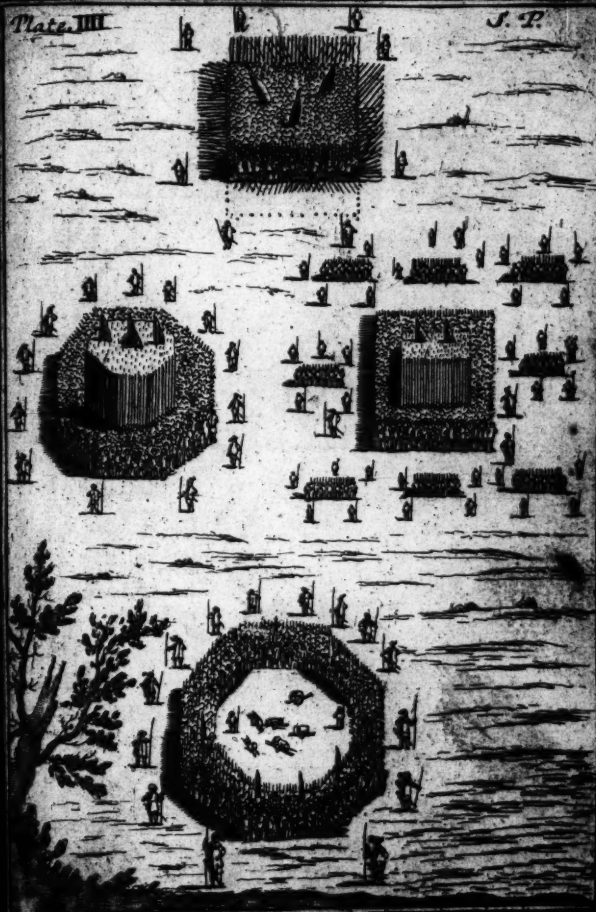
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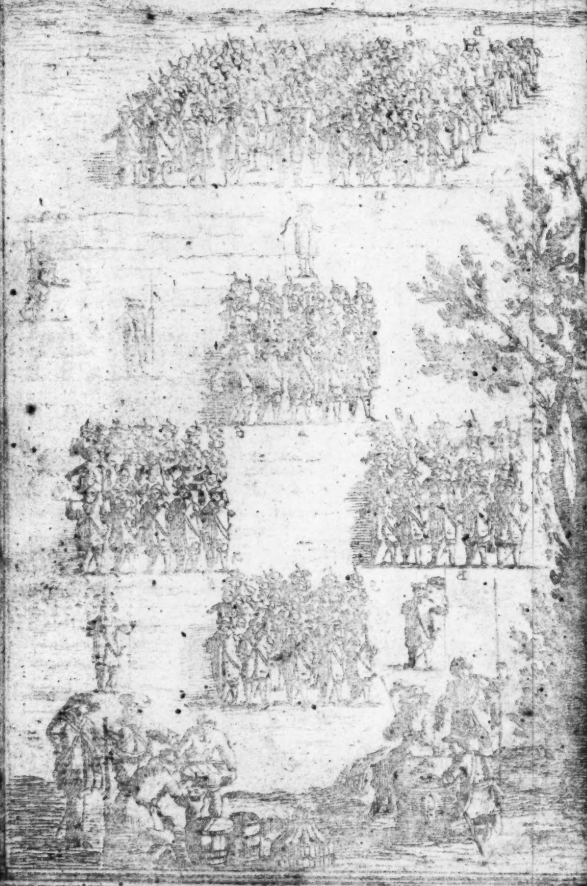


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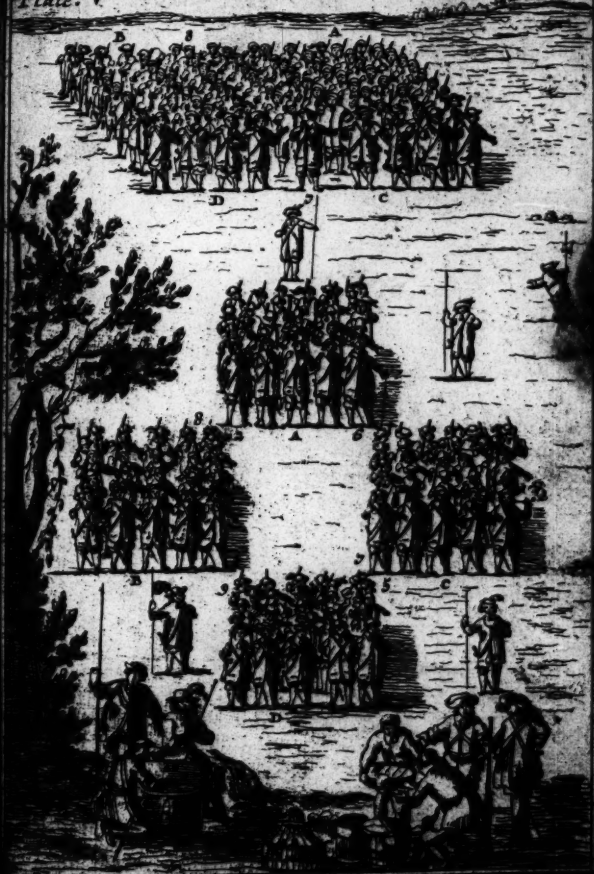
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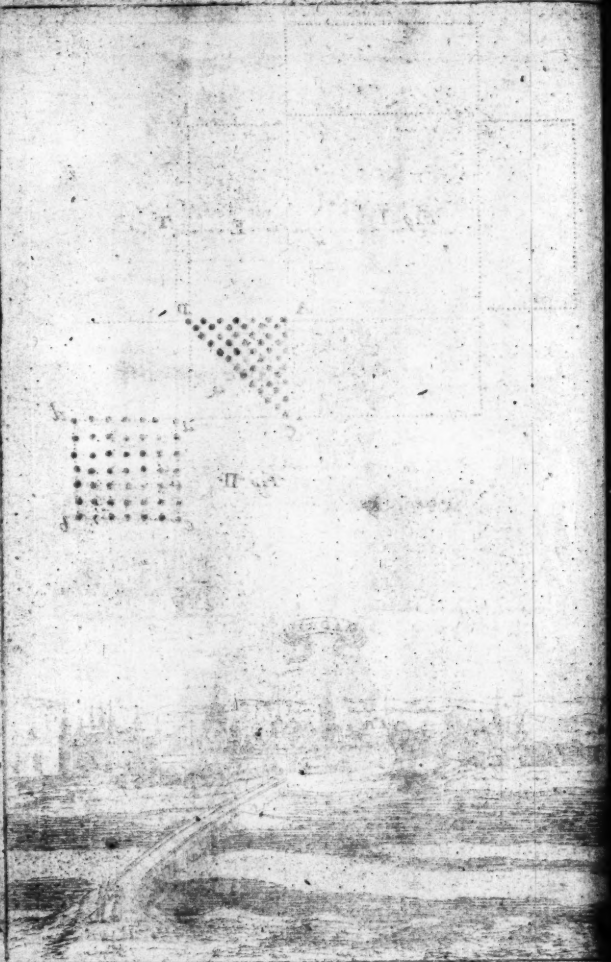


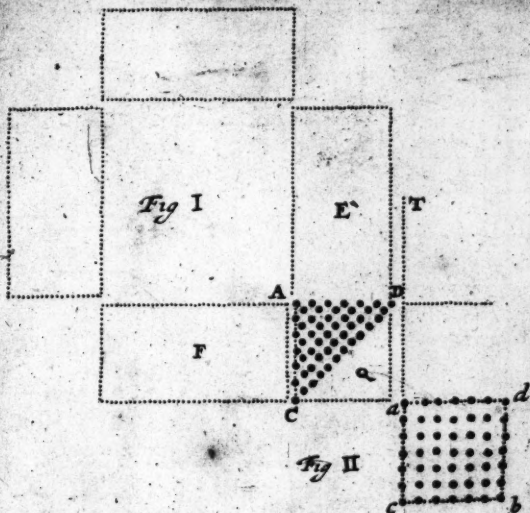






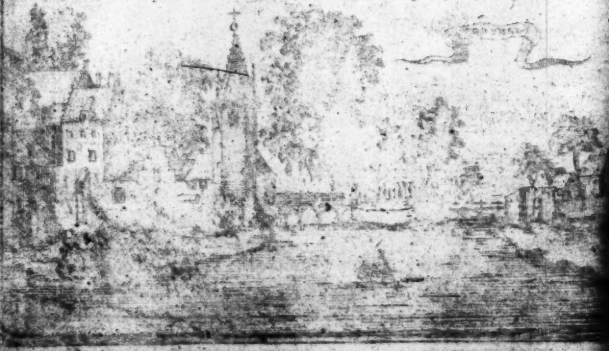
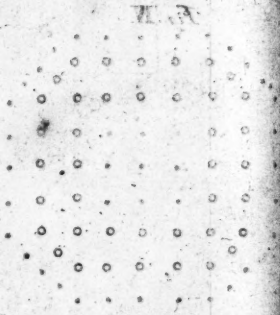
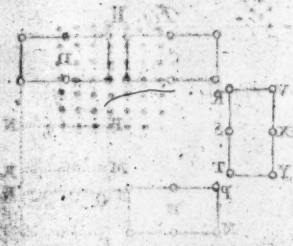
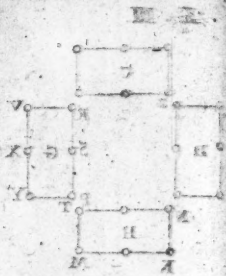
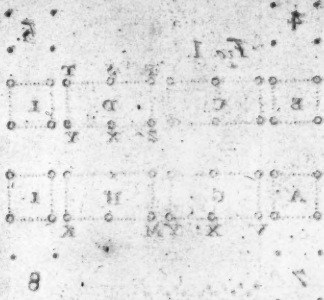




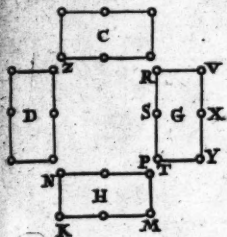


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*Fig. III.*



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*Fig. 1.*

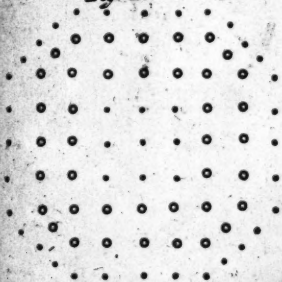


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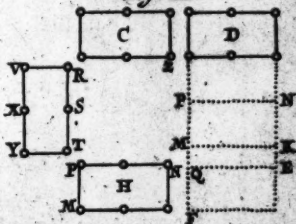
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*Fig. IV.*



*Fig. II.*



O		M		M		V	
20	D	20	E	20	E	20	A
10	C	10	E	10	E	10	P
0		0		0		0	B

O		M		M		V	
20	D	20	E	20	E	20	A
10	C	10	E	10	E	10	P
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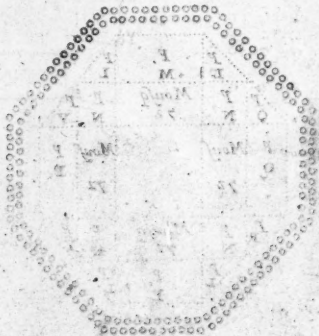


Fig: I.

		M		M			
O						V	
C 36	Q	M 72	M 72	M 72	P 72	A	
D 36		E	E 72	E		B 36	
R						T	
		E		E			

		I	L	M 144	L	F			
O	Q 72	Y	N			N	Y	V	
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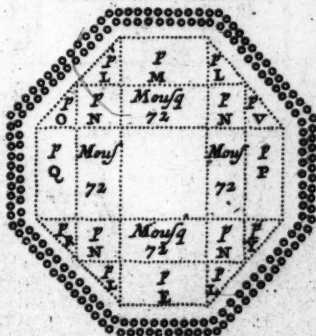
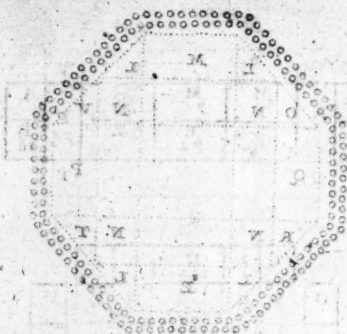
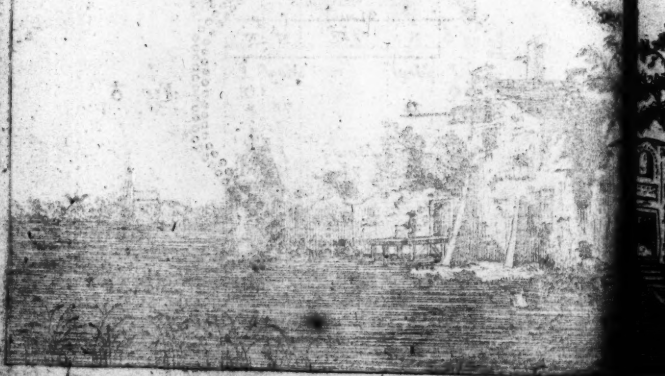


Fig: 8



C	M	M	M	A
D	E	E	E	B





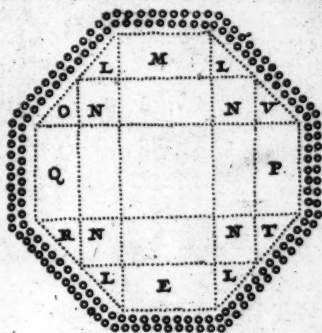
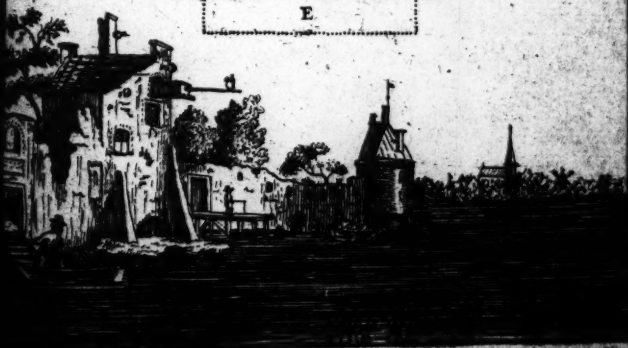
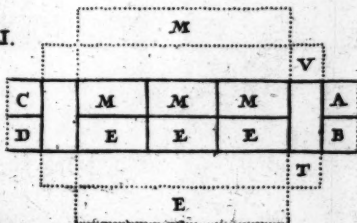


Fig. I.



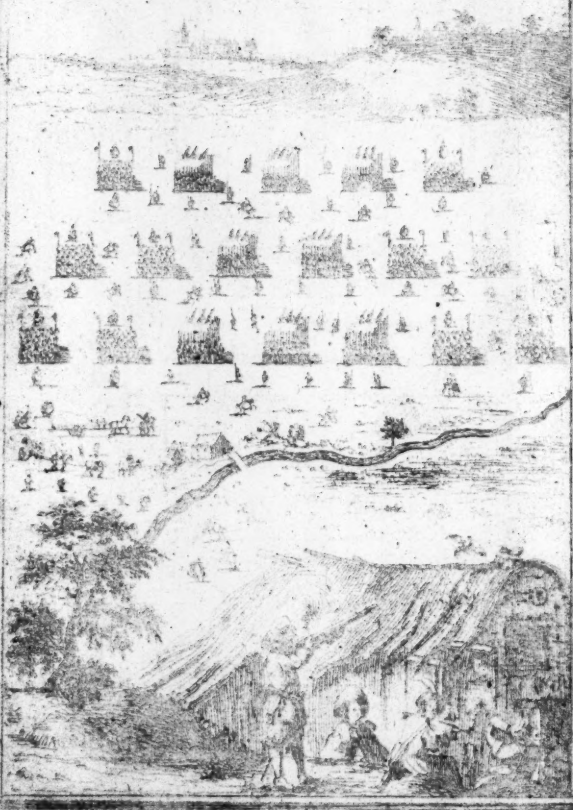


Plate. X

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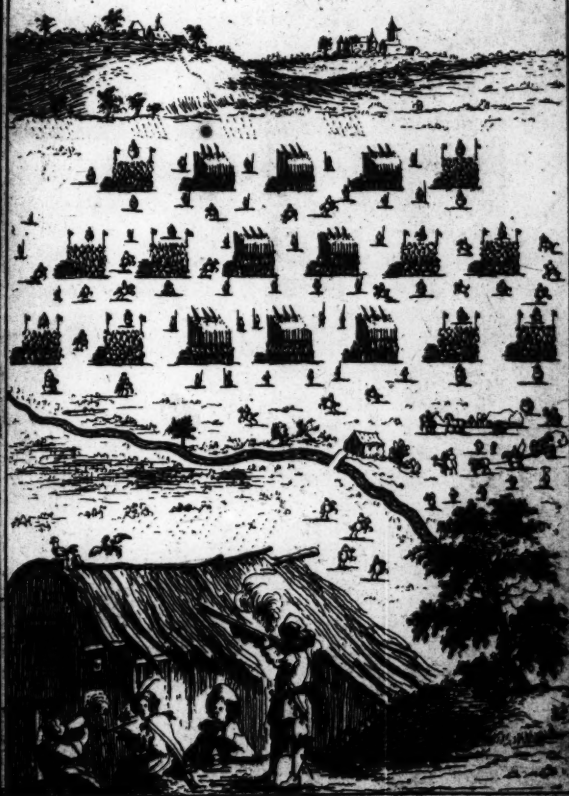


PLATE XI

PLATE XI

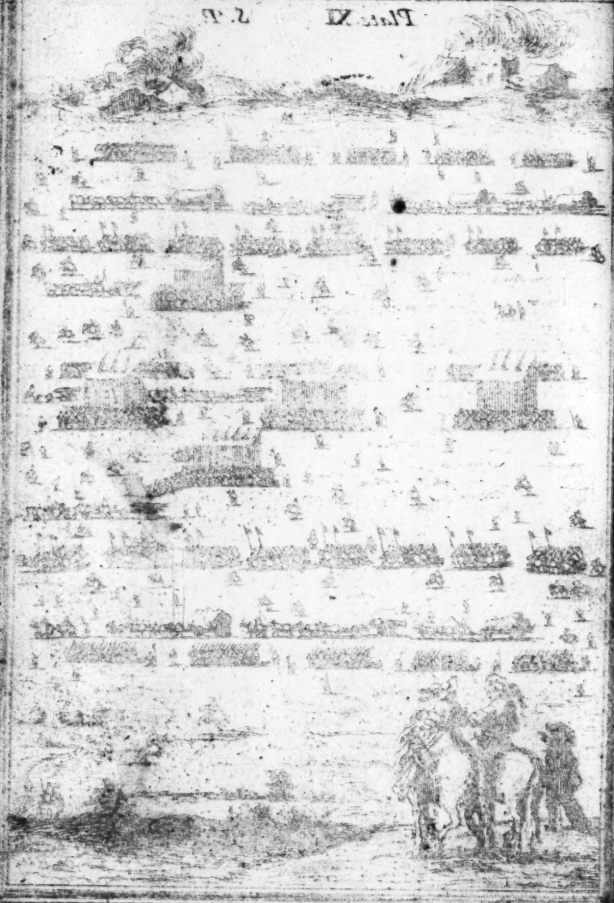


Plate. XI

S. P.

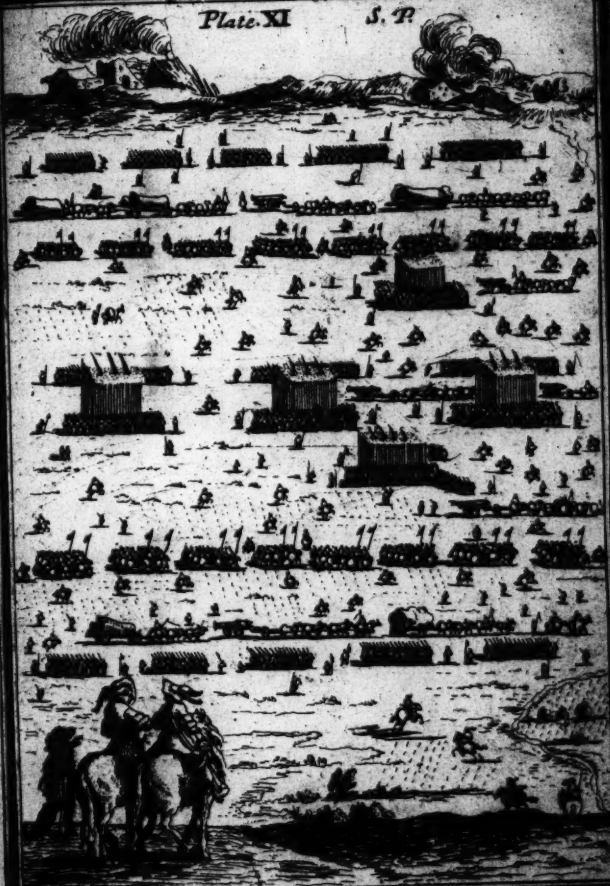




Plate. XIII S. T.

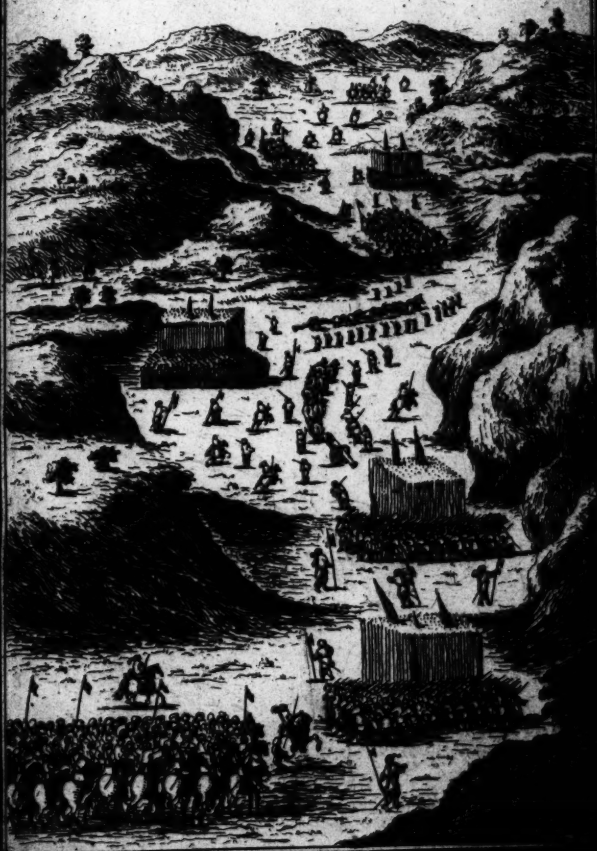


PLATE 2 P.





Plate. XIII S. P.

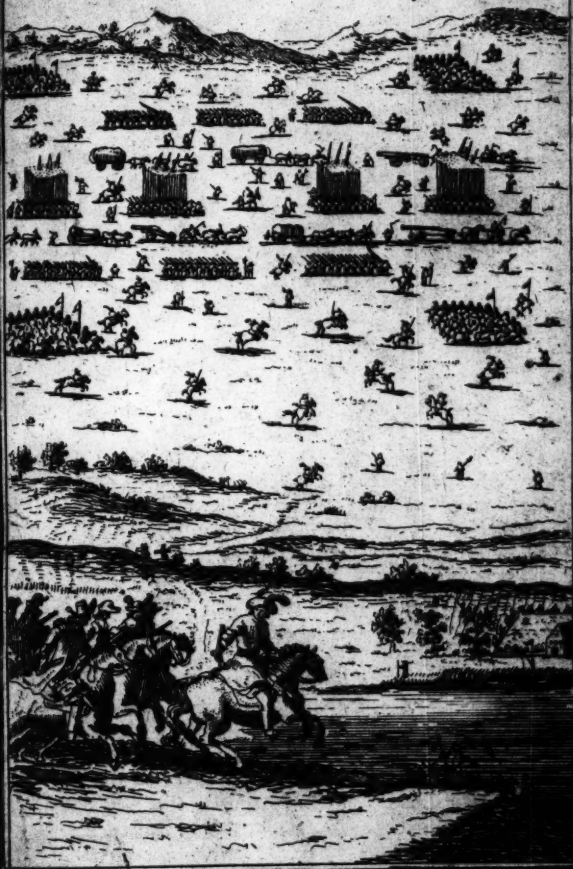


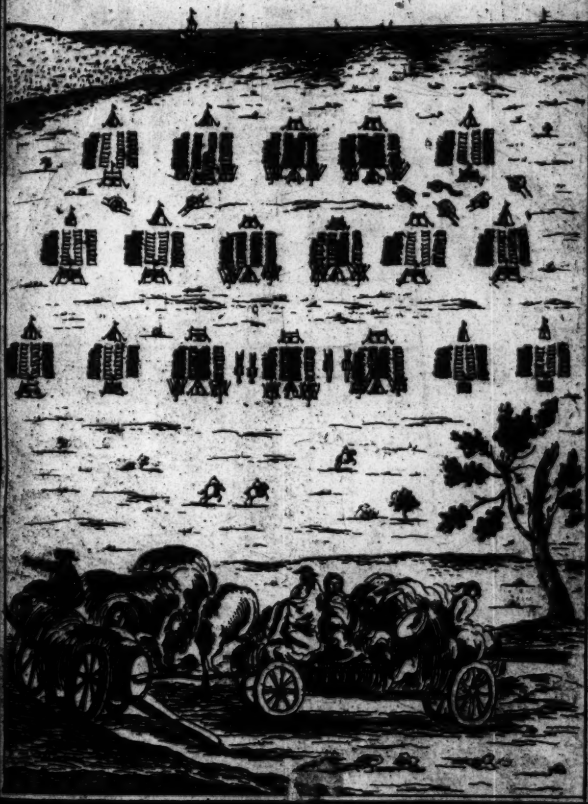






Plate. XV.

S.P.



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